1 97 100.0 66 24 W13598 Monocyte chemoattract 4.79e-03 3 97 100.0 67 24 W13597 3 97 100.0 68 24 W13597 4 97 100.0 69 14 R87678 des(2-8) MCP-1. 5 97 100.0 69 24 W13596 6 97 100.0 76 15 R87680 Monocyte chemoattract 4.79e-03 7 97 100.0 76 15 R87680 Monocyte chemoattract 4.79e-03 8 97 100.0 76 5 R28660 9 97 100.0 76 1 P29292 Peptide from human gl 4.79e-03 10 97 100.0 76 14 R87675 (28-Asp) MCP-1. 12 97 100.0 76 10 R53398 Sense MCP-1. 13 97 100.0 76 14 R87676 (3-Asp) MCP-1. 14 97 100.0 76 14 R87676 (24-Asq) MCP-1. 15 97 100.0 76 14 R87676 (24-Arq) MCP-1. 16 97 100.0 99 5 R28663 MCP-1. 17 97 100.0 99 13 R70800 Chemoattractant prote 4.79e-03 18 97 100.0 99 13 R70800 Chemoattractant prote 4.79e-03	Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.  SUMMARIES  Result Ouery No. Score Match Length DB ID Description Pred. No.	Database: a-geneseq32 1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7 8:part8 9:part9 10:part10 11:part11 12:part12 13:part13 14:part14 15:part15 16:part16 17:part17 18:part18 19:part19 20:part20 21:part21 22:part22 23:part23 24:part24 25:part25 26:part26 27:part27 28:part28 29:part29 Statistics: Mean 18.390; Variance 63.736; scale 0.289	Scoring table: PAM 150 Gap 15 Searched: 131922 segs, 16180660 residues Post-processing: Minimum Match 08 Listing first 100 summaries	Release 3.1A John F. Collins, Biocomputing Research Unit.  Copyright (c) 1993-1998 University of Edinburgh, U.K.  Distribution rights by Oxford Molecular Ltd  MPsrch_pp protein - protein database search, using Smith-Waterman algorithm  Run on: Thu Apr 1 07:24:54 1999; MasPar time 2.88 Seconds  Tabular output not generated.  Title: >US-08-927-939-1 Description: (1-12) from US08927939.pep  Ferfect Score: 97 Sequence: 1 EICADPKQKWVQ 12	(MX)
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Disclosure; Page 5; 27pp; English.

The present sequence represents an analogue, MCP-1 (10-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the CP-1 the chemoattractant protein-1 (MCP-1), acts as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 creceptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared Sequence 66 AA;
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20-DEC-1996,
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(LEWI/) LEWIS I.
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19-JUN-1995; 152141.
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Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                           Truncated monocyte chemoattractant protein-1; inhibitor; receptor binding; anti inflammatory; basophil; lymphocyte;
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                                                            Homo sapiens.
                                                                                                                    Monocyte
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Human SDF-1-alpha.
Protein encoded by cD
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Pf anti-inflammatory agent
Claim 7; Page 5; 27pp; English.

CC The present sequence represents an analogue, MCP-1 (9-76), of monocyte Chemoattractant protein-1 (MCP-1). The analogue, which lacks the CC N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1 (as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 (cc as it lacks MCP-1 which is an inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration composed and other cells e.g. basophils and lymphocytes into cc inflammation sites. MCP-1 has been implicated in allergic and chronic clinflammatory diseases e.g. arthritis, arteriosclerosis and several lung competes more effectively with MCP-1 for binding more receptors than prior art mutant versions of MCP-1 e.g. preferably croviding 50% inhibition of binding at a 25:1 ratio or less, compared cc with 75:1 for prior art mutant 7ND.

Sequence 68 AA;
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Disclosure; Page 5; 27pp; English.

CT The present sequence represents an analogue, MCP-1 (11-76), of monocyte

CC The present sequence represents an analogue, which lacks the

CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1

CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1

CC receptor. The analogue is useful as an anti-inflammatory agent to block

Ct the effects of MCP-1 which is an inflammatory mediator causing migration

CC of monocytes and other cells e.g. basophils and lymphocytes into

CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung

CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung

CC inflammatory the analogue competes more effectively with MCP-1 for binding

CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably

providing 50% inhibition of binding at a 25:1 ratio or less, compared

CC Sequence 67 AA;
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WPI; 97-16584/16.
N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1)
lacks MCP-1 activity and inhibits receptor binding, useful as
anti-inflammatory agent
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Homo sapiens.
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19-JUN-1995; CA-152141.
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Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28 Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of anino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular The peptides can be used to prevent restenosis, e.g. in patients
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W13596;
07-NOV-1997 (fi
N-terminally truncated monocyte chemo:attractant protein-1 lacks MCP-1 activity and inhibits receptor binding, useful anti-inflammatory agent Claim 5; Page 5; 27pp; English.

The present sequence represents an analogue, MCP-1 (8-76), chemoattractant protein-1 (MCP-1). The analogue, which lack N-terminal amino acids 1-7 of MCP-1, acts as an antagonist
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Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
chronic inflammatory disease; arthritis; arteriosclerosis;
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12-NOV-1993; US-152301.
(DAND ) DANA FARBER CANCER INST INC
ROllins B, Zhang YJ;
WPI; 95-215051/28
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19-JUN-1995; CA-152141.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   disease.
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69 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               peptide; 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein; 69
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Pred.
0; M
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No. 4.79e-03;
                                              analogue, MCP-1 (8-76), of monocyte The analogue, which lacks the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the native protein residues"
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        antagonist of
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                                                                                                                                                                                                                 SB
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        MCP-1
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Matches 1
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Best Local
25-FEB-1997.
05-OCT-1992;
05-OCT-1992;
05-OCT-1992;
29-APR-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammation sites. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared with 75:1 for prior art mutant 7ND.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Wound treatment using monocyte chemotactic factor - has potent therapeutic effect on skin wounds and ulcers Disclosure; Page 12; 22pp; Japanese.
The invention relates to a new remedy for curing wounds which, instead of comprising a growth factor, comprises a monocyte chemotactic activating factor (MCAF) or its variants or derivatives. The factor has potent effect on skin wounds and ulcers. The present sequence is human MCAF, the activity of which is exemplified as the new remedy.

Sequence 76 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R87680
                                                                                                                                                                                                                                                                                                                                                                                                                        Mature human monocyte chemoattractant protein-1 (MCP-1). MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8; IL-8; neutrophil activating peptide; labelling; imaging; targeting; radionuclide; infection; inflammation; neoplasm; atheromatous lesio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  W11131 standard;
W11131;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (TORA) TORAY IND INC. Matsushima K, Naruto M; WPI; 95-131181/17.
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05-MAR-1996 (first entry)
                                                                                                                                                                                                  US5605671-A.
                                                                                                                                                                                                                                                                         misc_difference
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13-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                            restenosis.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-MAR-1995
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Similarity 100.0%;
12; Conservative
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Similarity 100.0%;
12; Conservative
   956862.
US-956863.
US-956862.
US-235659.
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JP-227385.
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Pred. No. 4.79e-03;
0; Mismatches 0
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Pred.
0; M
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No. 4.79e-03;
                                                                                                                                                                                                                                     acid"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
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RESULT
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AC PS
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OS H1
FH K6
FH K6
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Best Local
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Example 10; Column 19-20; 15pp; English.
W11131 represents mature human monocyte chemoattractant protein-1
(MCP-1). MCP-1 was radionuclide labelled and used in a method for
imaging a target site in vivo in an animal. Labelled MCP-1 was allowed
to accumulate at a target site (having MCP-1 receptors) in the animal
and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys
chemokine carrying either iodine-123 or iodine-131 can be used in the
method. Especially preferred is neutrophil activating peptide-2 (NAP-2)
which recognises interleukin-8 receptors and is labelled with
technetium-99m, indium-111, copper-62, rhenium-186 or rhenium-188.
The method can be used for imaging a site of infection, inflammation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (DAIN) DAINIPPON PHARM CO LTD.

(DAIN) DAINIPPON PHARM CO LTD.

(Pukui T, Matsuo N, Yamada M, Yamagishi J;

WPI; 92-398864/48.

N-PSDB; Q30745-46.

Prodn. of polypeptide(s) having monocyte chemotactic activity - using expression plasmids with E. coli elements and specific E. coli strains

Claim 1; Page 48 + Page 36; 56pp; English.

An expression plasmid, pHM483, for producing MCF(76) consisting of 76 amino acids was constructed. The prod. can be used for elecating bacterial infectious diseases.

Sequence 76 AA;
                                                                           P90292 standard; peptide; 76 AA
P90292;
17-JAN-1990 (first entry)
Peptide from human glioma cell
Glioma; leucocyte; chemotaxis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R28660;
R28660;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-NOV-1992.
27-APR-1992; J00550.
09-MAY-1991; JP-135950.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Plasmid; monocyte chemotactic factor; MCF; translation; termination; terminator; initiation; ribosome binding site; RBS; promoter; tryptophan; repressor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24-MAR-1993
MCF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (MLCW ) MALLINCKRODT MEDICAL INC.
(UNMI) UNIV MICHICAN.
KUNKel SL, Lyle LR, Strieter RW
KUNKel SL, Lyle LR, Strieter RW
MPI; 97-153541/14
modified_site
                                                              Human.
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||||||||||||
1 EICADPKQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                    / Match 100.0%;
Local Similarity 100.0%;
nes 12; Conservative
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1 EICADPKQKWVQ 12
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                               Location/Qualifiers
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                                                                                                                    cell line U-105MG
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Pred. No. 4.79e-03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 97; DB 5; I
Pred. No. 4.79e-03;
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                                                                                                                                                                                                              Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis

Claim 3; Page 11; 22pp; English.

Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 4Arg by Phe; (3) substitution of 3-Asp by And/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.

Chair are the present restenosis, e.g. in patients

Chair and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.

Chair are the present restenosis, e.g. in patients

Chair are the present restenosis, e.g. in patients
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07-NOV-1994; U12874.
12-NOV-1993; US-152301.
(DAND ) DANA FARBER CANCER II
ROLLINS B, Zhang YJ;
WPI; 95-215051/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US7304234-A.
20-JUL-1989; 030423.
31-JAN-1989; US-30423.
31-JAN-1989; US-304234.
(USSH) US Dept. of Health and H.
Yoshimura T; Robinson E; Appell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (28-Asp) MCP-1.
monocyte chemoattractant protein; MCP-1; mutant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      T 10
R87675 standard; protein; R87675;
C1-FEB-1996 (first entry)
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Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from leukocytes and has mol. wt. 8400. Used to treat infections and neoplasms. Sequence 76 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 89-263501/36.

New peptide with specific chemotactic activity for monocytes from glioma or leucocyte cells, useful for treating infections
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hes 12; Conservative
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EICADPKQKWVQ
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Similarity 100.0%;
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No. 4.79e-03;
                                                                                                                                DB 14; I
. 4.79e-03;
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22-OCT-1992; US-965678.
27-MAY-1994; US-250958.
(UNMI) UNIV MICHIGAN.
(UNME) SL, Lyle LR, St.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) - useful for therapy or diagnosis of restenosis, etc.

Disclosure; Column 13-14; 16pp; English.

This is the amino acid sequence of the human monocyte chemoattractant protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent stimulator of monocyte chemotaxis and is produced by injured vascular smooth cells thus attracting monocytes and macrophages which infiltrate the injured area and release growth factor. This causes proliferation of the vascular smooth cells resulting in restenosis. The gene sequence can be used to generate antisense sequences e.g. T48093-7, which can be used to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or macrophages, or smooth muscle cells, esp. in order to prevent vascular restenosis, or smooth muscle cells, esp. in order to prevent vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R53398 standard; Protein; 76
R53398;
15-DEC-1994 (first entry)
Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and peptide(s) - is used for inhibiting, treating or imaging areas of vascular restenosis or potential restenosis Disclosure; Page 5; 42pp; English.

The sequences given in R53398-99 represent sense and antisense monocyte chemotactic protein-1 (MCP-1) respectively. These
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Human; monocyte chemoattractant protein; antisense; inhibition; mononuclear cell; lymphocyte; macrophage; smooth muscle cell; vascular restenosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             diagnosis;
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05-NOV-1996.
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W09374;
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WPI; 94-151314/18
                                                                                                                                                                                                                                             28-APR-1994.
20-OCT-1993; U10074.
22-OCT-1992; US-965678
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larity 100.0%;
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Pred. No. 4.79e-03;
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beta; emitting isotope;
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                            NULT 14
R87676 standard; protein; 76 AA.
R87676;
21-FEB-1996 (first entry)
(24-Arg) MCP-1.
monocyte chemoattractant protein; Mcangioplasty.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28 Tyr by Leu and/or 30-Arg by val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989. The peptides can be used to prevent restenosis, e.g. in patients sequence 76 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             oligonucleotides may be labelled with a radionuclide and use therapeutically for the treatment of vascular restenosis. Radiolabelled antisense MCP-1 compounds may be constructed using he energy alpha or beta emitting isotopes rather than the gamma emitters cutomarily used for diagnostic purposes. Antisense MCP-1 compounds inactivate MCP-1 or inhibit production of MCP-1 so that monocytes are not attracted to the area of vascular injury and proliferation of vascular cells is inhibited.

Sequence 76 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - a capable of inhibiting the monocyte chemo-attractant activity endogenous MCP-1 and can be used to treat restenosis Claim 6: Page 11; 22pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-MAY-1995.
07-NOV-1994; U12874.
12-NOV-1993; US-152301
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R87677 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rollins B, Zhang YJ;
WPI; 95-215051/28.
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  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (DAND ) DANA FARBER CANCER INST
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No. 4.79e-03
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No. 4.79e-03;
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This sequence represents the mature form of monocyte chemotactic protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of chemoattractant cytokines or chemokines. It is a potent stimulator of monocyte chemotaxis and has an extennely high degree of specificity for this cell type. MCP-1 is produced by injured vascular smooth muscle cells and attracts the monocytes and macrophages which infiltrate the area, releasing growth factors and resulting in proliferation of vascular smooth muscle and restenosis. Nucleic acid molecules which are antisense to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may be useful for inhibiting vascular restenosis, partic. following balloon angioplasty or a related process. The molecule may be radiolabelled to increase its therapeutic effect or for imaging areas of potential
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LT 15
R86859
R86859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989. The peptides can be used to prevent restenosis, e.g. in patients
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Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such
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W09513295-A1.

W09513295-A1.

107-NOV-1994; U12874.

12-NOV-1993; US-152301.

(DAND ) DANA FARBER CANCER INST INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                      New anti:sense oligo:nucleotide(s) and peptide(s) for inhibiting restenosis - are directed against C-C family cytokine(s) such a monocyte chemotactic protein, opt. radio:labelled for therapy or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Antisense; monocyte chemotactic protein-1; MCP-1; "C-C" family; chemoattractant cytokine; chemokine; stimulation; monocyte; chemotaxis; vascular smooth muscle cell; macrophage; proliferation; restenosis; balloon angioplasty.
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WPI; 95-215051/28.
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13-JAN-1995; U00605.
14-JAN-1994; US-182917.
(MLCW ) MALLINCKRODT MEDICAL
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25-JUL-1989;
30-MAR-1989; 330446.
30-MAR-1989; US-330446.
(USSH) US Dept. Health al
Yoshimura T, Robinson EA
WPI; 89-300683/41.
N-PSDB; N91337/41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                An expression plasmid, pHMC076 for product of 76 amino acids was constructed. DNA e prepd. using a recombinant plasmid pHMCF7. Sequence 99 AA;
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Prodn. of polypeptide(s) having monocyte chemotactic activity prodn expression plasmids with E. coli elements and specific
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Sequence
Human derived monocyte chemo-attractant glioma cell line U-105MG or peripheral b Disclosure; fig 2; 66pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (DAIN ) DAINIPPON PHARM CO
Fukui T, Matsuo N, Yamada N
WPI; 92-398864/48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RBS;
                                                                                                                                                                                                                                                                            protein
                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                         Human monocyte
                                                                                                                                                                                                                                                                                                                                                                                  P95387;
25-JUL-1989 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                            T 17
P95387 standard; protein; 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 43-44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12-NOV-1992.
27-APR-1992; J00550.
09-MAY-1991; JP-135950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               termination;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Plasmid;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MCF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R28663;
24-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          T 16
R28663 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              73 eicadpkqkwvq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            coli strains
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              51 eicadpkqkwvq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 EICADPKQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 EICADPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             promoter;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          h 100.0%;
Similarity 100.0%;
12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               monocyte chemotactic factor; MCF; traion; terminator; initiation; ribosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    77
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                                                                                                                                                                                                                                                                                                                                  chemo-attractant peptide-1.
chemo-attractant peptide; inflammatory disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tryptophan; repressor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /label= sig_peptide 24..99 /label= mat_protein
                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                     /product=MCP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Yamada M,
                                                                                                                   EA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; 56pp; E
                                                                                                                                        and
                                                                                                               nd Human.
Appella
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 97; DB 5; I
Pred. No. 4.79e-03;
0; Mismatches C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 97; DB 15;
Pred. No. 4.79e-03
                                                                                                                                                                                                                                                                                                                                                                                                                                 A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Yamagishi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                   [F]
                                                                                                                   Leonard
                         t peptide prods. -
blood mononuclear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         translation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               binding site;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
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                                              obtd.
                           leukocytes.
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                                              from human
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Best Local
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            W09504158-A.
09-FEB-1995,
26-JUL-1994, U08207.
29-JUL-1993, US-999866.
13-OCT-1993, US-136117.
(UPJO ) UPJOHN CO.
HOOGWERF AJ, Ledbetter SI
WPI, 95-082239/11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              vector, and expression in Sf9 cells in the presence of glutathione and dithiothreitol.

Sequence 99 AA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Screening for cpds. with anti-heparanase activity - by detecting inhibition of heparin or heparan sulphate degradation, potentially useful for treating arthritis, restenosis, cancer. Claim 13; Page 49; 60pp; English.

Purified heparanases, prepared under reducing conditions and activated with transglutaminase, are given in R70786-804. Most are prepared by reverse transcription of mRNA from activated human leukocytes, then cloning of the cDNA into PVI1392 baculovirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This is a human-derived monoyte chemo-attractant peptide (MCP-1) sequence MCP-1 exhibits optimal chemotactic activity at a concn. of InM and has a mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg inflammatory disease, or for the control of neoplasms by accumulation of monocytes at the site of the infection. The corresp. DNA is obtd. by chemical synthesis, by screening reverse trascripts of mRNA from purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5. Sequence 99 AA;
                                                                                                              06-APR-1995.
28-SEP-1994; CA0516.
28-SEP-1993; US-127499.
                                                                                                                                                                                                                                                                                                                                                   Human monocyte chemoattractant factor hMCP-1; Chemokine; v Human monocyte chemoattractant factor; hMCP-1; Chemokine; v meningitis related homologous antigenic sequence; MRHAS; RV immunoassay; diagnosis; treatment; prophylactic; bacterial;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R73914 standard; protein; 99
R73914;
05-DEC-1995 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chemoattractant protein MCP-1.
MCP-1; chemoattractant; heparanase; heparin; heparan sulfate; arthritis; restenosis; cancer; wound healing.
Homo sapiens.
(SHAR/) SHARMA L R.
(VALS/) VAN ALSTYNE D.
Sharma LR, Van Alstyne
                                                                                                                                                                                                                                             WO9509232-A.
                                                                                                                                                                                                                                                                                                                          viral.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-PSDB; Q85370.
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                                                                                                                                                                                                                                                                                 sapiens.
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Similarity 100.0%;
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Similarity 100.0%;
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. No. 4.79e-03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
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3. 4.79e-03; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 99;
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Pr New peptide(s) and corresp. antibodies for the treatment of meningitis - the peptide(s) corresp. to homologous antigenic sites on bacterial and viral agents and on chemokine(s), used for detecting and preventing meningitis

Claim 4); Fig 8/10; 98pp; English.

CC R73914 is the chemokine Human monocyte chemoattractant factor hMCP-1.

CC It contains the meningitis related antigenic sequences (MRHAS) claimed in R7395 and R73907, which are recognised by a monoclonal antibody crome the hybridoma Rubella virus (RV)-1. The claimed MRHAS peptides may be used in immunoassays to diagnose the presence of bacterial cc and/or viral meningitis agents in a sample, or in prophylactic and therapeutic meningitis treatments. The peptides may also be used as CC vaccines against meningitis.

CC NB: Identified by matching corresponding MRHAS peptides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 1
                                                                                                                                             antagonist can be used to reduce excessive levels of Ck beta10. Ck beta10 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic diseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, regulates haematopoiesis and generates antibodies. Labelled Ck beta10 can be used to identify its cognate receptor, while cells expressing the receptor can be used to screen compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic syndrome, lung inflammation and atheroscierosis. Ck beta10 CDNA can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              prol3+ chemokine beta10 or monocyte chemotactic protein 4 Human; chemokine beta10; Ck beta10; treatment; antagonist; solid tumour; infection; autoimmune disease; asthma; antib fibrotic disease; psoriasis; neurodegenerative disease; wound healing; haematopoiesis regulation; gene therapy; chromosome identification; monocyte chemotactic protein 4;
                                                                                                                                                                                                                                                                                                                                                                                                asthma and fibrosis

asthma and fibrosis

Example 11; Fig 5; 83pp; English.

The present sequence is human chemokine beta10 (Ck beta10) or

monocyte chemotactic protein 4 (MCD-4) Drol3+ variant, which can
be used to treat patients deficient in Ck beta10, while a Ck beta10

be used to treat patients deficient in Ck beta10, of Ck beta10. Ck
                                                                                     be used to isolate genes encoding similar peptides,
and for chromosome identification.
Sequence 71 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Polypeptide encoding chemokine beta 4 and monocyte chemotactic protein 4 - useful to treat tumours, autoimmune disease, infec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (HUMA-) HUMAN GENOME SCI INC.
Adams M, Alderson R, Applebaum E,
Parmelee D, White J;
WPI: 97-435153/40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   leukaemia; MCP-4; Drol3+ variant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19-MAR-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         73 eicadpkqkwvq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 EICADPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    h 100.0%;
Similarity 100.0%;
12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       002598.
WO-002598.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             71 AA.
Score 93; DB 27;
Pred. No. 1.28e-02;
1; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 97; DB 14;
Pred. No. 4.79e-03;
0; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Li H, Li
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         autoimmune disease, infection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ٧,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
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Query Match Best Local S Matches 1

Similarity 11; Conse

95.9%; llarity 91.7%; Conservative

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Indels

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Gaps

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Length 71;

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45 eicadpkekwvq :
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1 EICADPKQKWVQ :

56

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IRESULT
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The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) Bac 3 variant, which can be used to treat patients deficient in Ck beta10, while a Ck beta10 antagonist can be used to reduce excessive levels of Ck beta10 cx beta10 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic cd diseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, regulates haematopoiesis and generates cantibodies. Labelled Ck beta10 can be used to identify its cognate receptor, while cells expressing the receptor can be used to screen cc compounds for (ant)agonist activity. The antagonist can be used to freat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and compounds for inflammation and atherosclerosis. Ck beta10 can be used to isolate genes encoding similar peptides, in gene therapy and for chromosome identification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
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Best Local
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19-MAR-1998 (first entry)
Bac 3 chemokine beta10 or
                                                                                                                                                                                                               w22672;
19-MAR-1998 (first entry)
Bac 2 chemokine beta10 or monocyte chemotactic protein 4 variant.
Human; chemokine beta10; Ck beta10; treatment; antagonist;
solid tumour; infection; autoimmune disease; asthma; antibody;
fibrotic disease; psoriasis; neurodegenerative disease;
wound healing; haematopoiesis regulation; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-AUG-1997.
23-FEB-1996; U02598.
23-FEB-1996; WO-U02598.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; chemokine betal0; Ck betal0; treatment; antagonist; solid tumour; infection; autoimmune disease; asthma; antibody; fibrotic disease, psoriasis; neurodegenerative disease; wound healing; haematopoiesis regulation; gene therapy;
28-AUG-1997.
23-FEB-1996; U02598.
23-FEB-1996; WO-U02598
                                                                                                                                                            chromosome identification; monocyte chemotactic protein leukaemia; MCP-4; Bac 2 variant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Polypeptide encoding chemokine beta 4 and monocyte chemotactic protein 4 - useful to treat tumours, autoimmune disease, infection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (HUMA-) HUMAN GENOME SCI INC. Adams M. Alderson R. Applebaum Parmelee D. White J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bac 3 chemokine betail or monocyte chemotactic protein 4 variant Human; chemokine betail; Ck betail; treatment; antagonist;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     T 21
W22673 standard; Protein;
                                                                                             WO9731098-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  W22672 standard; Protein; 77 AA.
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                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       asthma and fibrosis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          49 eicadpkekwvq 60
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| 1 EICADPKQKWVQ 12
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11; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        identification; monocyte chemotactic protein 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
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91.7%;
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Pred. No. 1.28e-02;
1; Mismatches 0;
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CC The present sequence is human chemokine betal0 (Ck betal0) or monocyte chemotactic protein 4 (MCP-4) Bac 2 variant, which can be used to treat patients deficient in Ck betal0, while a Ck betal0 can be used to reduce excessive levels of Ck betal0 (Ck betal0 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic cd diseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, regulates haematopoiesis and generates cantibodies. Labelled Ck betal0 can be used to identify its cognate receptor, while cells expressing the receptor can be used to screen compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and compounds for lung inflammation and atherosclerosis. Ck betal0 cDNA can be used to isolate genes encoding similar peptides, in gene therapy cand for chromosome identification.
Example 11; Fig 5; 83pp; English.

So The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) Droll/2 variant, which can compone to the used to treat patients deficient in Ck beta10, while a Ck beta10 can be used to reduce excessive levels of Ck beta10 (Ck beta10 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic diseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, regulates haematopoiesis and generates antibodies. Labelled Ck beta10 can be used to identify its cognate receptor, while cells expressing the receptor can be used to screen compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                       solid tumour; infection; autoimmune disease; asthma; antibody; fibrotic disease; psoriasis; neurodegenerative disease; wound healing; haematopoiesis regulation; gene therapy; chromosome identification; monocyte chemotactic protein 4; leukaemia; MCP-4; Droll/2 variant.
                                                                                                                                                                                                                                                           Polypeptide encoding chemokine beta 4 and protein 4 - useful to treat tumours, autosasthma and fibrosis
                                                                                                                                                                                                                                                                                                                (HUMA-) HIMAN GENOME SCI INC.
Adams M. Alderson R, Applebaum
Parmelee D, White J;
WPI: 97-435153/40
                                                                                                                                                                                                                                                                                                                                                                                      23-FEB-1996; WO-U02598.
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19-MAR-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (HUMA-) HUMAN GENOME Adams M, Alderson R, Parmelee D, White J;
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1 EICADPKQKWVQ
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Similarity 91.7%;
11; Conservation
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Pred. No. 1.28e-02;
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tumours, autoimmune disease, infection,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
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                                                                                                                                                                                                   Matches
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W22671;
19-MAR-1998
                                                     W17665;
16-DEC-1997 (first entry)
Stem cell mobilising chemokine CKbeta-10.
Haematopoietic cell; parasitic infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bac 1 chemokine beta10 or monocyte chemotactic protein 4 variant. Human; chemokine beta10; Ck beta10; treatment; antagonist; solid tumour; infection; autoimmune disease; asthma; antibody; fibrotic disease; psoriasis; neurodegenerative disease; wound healing; haematopoiesis regulation; gene therapy; chromosome identification; monocyte chemotactic protein 4;
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                                                                                                                                                                                                                                                                               syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can be used to isolate genes encoding similar peptides, in gene therapy and for chromosome identification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (HUMA-) HUMAN GENOME SCI INC.
Adams M, Alderson R, Applebaum E, Li H, Li Y,
Parmelee D, White J;
WPI: 97-435153/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens. W09731098-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Polypeptide encoding chemokine beta 4 and monocyte chemotactic protein 4 useful to treat tumours, autoimmune disease, infect
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-FEB-1996; U02598.
23-FEB-1996; WO-U02598.
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                                                                                                                                                                                                   Local Similarity nes 11; Conser
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nes 11; Conser
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                                                                                                                                     EICADPKQKWVQ
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                                                                    standard; peptide;
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                                                                                                                                                                     67
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                                                                                                                                                                                                               95.9%;
91.7%;
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91.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          English.
                                                                      82
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Pred.
1; N
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Pred. No. 1.28e-02;
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                                                                                                                                                                                                   Mismatches
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                                                                                                                                                                                                                 93; DB 27;
No. 1.28e-02;
     colony stimulating factor;
                                                                                                                                                                                             0;
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                                                                                                                                                                                                                              Length 82;
                                                                                                                                                                                                  Indels
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Best Local Similarity
Matches 11; Conser
         N-PSDB; T17050.

New chemokine Ck(beta)-4 and -10 genes and polypeptide(s) - useful to treat, e.g. leukaemia, solid tumours and auto-immune diseases Claim 19; Fig 2; S3pp; English.

A novel human chemokine, Ck beta-10 (R93087), was identified as the product of a cDNA clone (T17050) isolated from a 9-wk early human tissue cDNA library. The protein is structurally related to the chemokine family. Recombinant Ck beta-10 can be obtd. by incorporating the cDNA into a vector and expression of the protein in e.g. E. coli, COS or Sf9 cells. Ck beta-10 can be used to treat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present sequence represents a chemokine, CKbeta-10, which is capable of mobilising stem cells. The chemokine can be used therapeutically to improve stem cell mobilisation, optionally together with a colony stimulating factor or other haematoregulatory agent. It can be used wherever an increased level of haematopoietic cells is needed, e.g. to increase the immune response to chronic infection (particularly bacterial or parasitic), to promote wound healing, in (transpiant) patients with reduced bone marrow function as a result of immunosuppressive treatment or disease, and to provide more rapid regeneration of bone marrow after treatment for neoplastic or viral diseases. The induced stem cells may be harvested for subsequent return to the patient, optionally after they have been genetically manipulated to deliver a colling and provide more transpinated to deliver a colling after they have been genetically manipulated to deliver a colling and the patient.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Chemokine beta-10; chemokine beta-4; Ck beta-10; Ck beta cytokine; leukaemia; tumour; cancer; autoimmune disease; asthma; allergy; wound healing; diagnosis; therapy.
                                                                                                                                                                                                        (HUMA-) HUMAN GENOME
Adams MD, Li H;
WPI; 96-151145/15.
                                                                                                                                                                                                                                                              29-FEB-1996.
23-AUG-1994; U09484.
23-AUG-1994; WO-U09484.
08-SEP-1994; ZA-006936.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             T 26
R93087 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      to deliver a selected gene product (gene therapy). The cells co-administered with a cytotoxic drug. Sequence 82 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (SMIK ) SMITHKLINE BEECHAM CORP. Kreider BL, Li H, Pelus L, WhwpI; 97-258956/23.
 in e.g. E. col
solid tumours,
                                                                                                                                                                                                                                                                                                                                                                                  protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human chemokine beta-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         increase resistance to infection Claim 7; Page 11-12; 24pp; Engli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-MAY-1997.
23-OCT-1996; U16959.
24-OCT-1995; US-006051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      neoplastic disease; viral disease; gene therapy; cytotoxic drug.
                                                                                                                                                                                                                                                                                                                                            WO9605856-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                     peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27-AUG-1996 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ten new chemokine(s) able to mobilise stem cells - used where increased levels of haematopoietic cells are required, e.g. to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          wound healing; bone marrow;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           haematoregulator; immune response; bacterial infection; transplant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 56 eicadpkekwvg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 EICADPKQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
 chronic infections,
                                                                                                                                                                                                                                                                                                                                                          /label= Sig_peptide
25..98
/label= Mat_protein
                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
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91.7%;
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Pred. No. 1.28e-02;
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 psoriasis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
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allergy,
                   to treat
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Chis polypeptide comprises human macrophage-derived monocyte chemotactic protein-5 (MCP-5), a novel C-C chemokine. Its amino acid sequence was deduced from a cDNA clone (see 19988) and 79988) isolated from a human macrophage cDNA clibrary. A claimed method for producing MCP-5 comprises culturing a host cell that is stably transformed or transfected with MCP-5 polynucleotide. Also claimed is a hybridoma that produces a monoclonal antibody (MAb) that is specifically reactive with the mature MCP-5. MCP-5 (or its analogues and fragments) is used to enhance the immune response in cases of wounds or infections, while its inhibitors (e.g. the MAb) are useful as anti-inflammatories in cases of e.g. arthritis and crophrys disease, also for treatment of atherosclerosis. Crohn's disease, also for treatment of atherosclerosis, confiction of HIV. MCP-5 can also be used to identify its cognate receptor, while MCP-5 peptides (or the analogues or more proposed to modulate MCP-5 activity and to identify identify and to identify and to identify and to identify identified to identify and to identify identified to identify and to identify identified to identify identified to identify identified in the identified in 
                                                                                       Best Local Similarity
Matches 11; Conser
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Best Local
                                                                                                                                   Query Match
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Monocyte chemotactic protein 5; MCP-5; human; macrophage;
Chemokine; inhibitor; antiinflammatory; atherosclerosis;
Crohn's disease; arthritis; angiogenesis; tumour; metastasis;
therapy; diagnosis; medical imaging.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W30191 standard; Protein; W30191; 21-MAY-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           to regulate haematopoiesis, promote angiogenesis. It can also be used colony forman during chemotherapy. Sequence 98 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (ICOS-) ICOS CORP. Godiska R, Gray PW; WPI; 97-489645/45.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Polynucleotide encoding monocyte chemotactic protein-5 - useful in treatment of e.g. inflammation, atherosclerosis, anglogenesis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; T90880.
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                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-MAR-1997; U04898.
27-MAR-1996; US-622851.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                 MCP-5 agonists and antagonists.
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                                         72 eicadpkekwvq 83
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11; Conser
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                                                                                       Conservative
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24..98
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/note= "(Claim 4)"
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91.7%;
                                                                                                                                   95.9%;
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                                                                                       Pred.
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Pred. No. 1.28e-02;
1; Mismatches 0
                                                                                                            Score 93; DB 28;
Pred. No. 1.28e-02;
                                                                                       Mismatches
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Best Local S
Matches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   infections, autoimmune diseases, asthma, fibrotic diseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, regulates haematopolesis and generates antibodies. Labelled Ck beta10 can be used to identify its cognate receptor, while cells expressing the receptor can be used to screen compounds for (antiagonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can be used to isolate genes encoding similar peptides, in gene therapy and for chronosome identification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1; Fig 2; 83pp; English.

The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4), which can be used to treat patients deficient in Ck beta10, while a Ck beta10 antagonist can be used to reduce excessive levels of Ck beta10. Ck beta10 can be used to treat leukaemia, solid tumours, chronic or opportunistic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human chemokine betal0 or monocyte chemotactic protein 4. Human; chemokine betal0; Ck betal0; treatment; antagonist; solid tumour; infection; autoimmune disease; asthma; antibody; fibrotic disease; psoriasis; neurodegenerative disease; wound healing; haematopoiesis regulation; gene therapy;
                                                                                                                                                                                                                                                                                                      IT 29
R06398 standard; protein; 99
R06398;
14-DEC-1990 (first entry)
WO9007863-A.
26-JUL-1990.
                                                                                misc_difference
                                                                                                                                                                                                                                          Human MCF precursor.
Monocyte chemotactic factor; antibacterial; antitumour; cancer.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 97-435153/40.
N-PSDB; T85029.
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28-AUG-1997.
23-FEB-1996; U02598.
23-FEB-1996; WO-U02598.
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19-MAR-1998
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                                                                                                                                                                       protein
                                                                                                                                                                                                                        Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        72 eicadpkekwvq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 EICADPKQKWVQ
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Similarity 91.7%;
11; Conservative
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24..98
/label= mat_peptide
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1..23
                                                                                                                                                                                              Location/Qualifiers
                                                                                                             /note="Claim 1"
                                                                                                                                       /label-mature
                                                      /label=A or T
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           chemokine beta 4 and monocyte chemotactic treat tumours, autoimmune disease, infection,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 93; DB 27; Le
Pred. No. 1.28e-02;
1; Mismatches 0;
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Poly(A+)RNA from bull seminal vesicles was used to prepare a cDNA in the expression vector lambda gtll. 1.5 x 10(5) cDNA clones were screened with a polyclonal anti-P6 antiserum of monospecific immunoglobulin G and six positives were identified. The insert of a suitable cDNA clone, pH42, was cloned into pUC18 and sequenced. pH42 encodes the 11,114 Da precursor of P6. It is called Monocyte Chemoattractant (bMCP-1), which is a homologue of human (h)MCP-1. There is 72% overall AA sequence homology to hMCP-1 with the signal peptide showing 100% and the central region showing 89% homology. Sequence 76 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gramm W, Lins E;
WPI; 92-293438/36.
Drug containing a bovine protein homologous
treating inflammation, tumours, thrombosis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-JAN-1993 (first entry)
Sequence of bovine P6 protein.
Monocyte Chemoattractant; bovine P6-derivative; thrombosis; tumour; inflammation therapy.
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01-JAN-1989; JP-000065.
03-FEB-1989; JP-026438.
(USDC) US SEC OF COMMERCE.
Fruntani Y, Fukui T, Junich
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     also for diagnosis
Claim 1; Page 3; 6p
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31-JUL-1991; 125251.
31-JUL-1991; DE-125251.
(SCHA-) SCHAPER & BRUEMMER GMBH & CO
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DE4125251-C.
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R26580 standard; Protein; 76 AA.
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                                                                                                                                    94.88;
Local Similarity 91.78;
Nes 11; Conservation
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Pred. No. 1.63e-02;
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MPsrch\_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:24:12 1999; MasPar time 3.33 Seconds 134.969 Million cell updates/sec

Tabular output not generated.

Description:
Perfect Score:
Sequence: Title: >US-08-927-939-1 (1-12) from US08927939.pep 97 1 EICADPKQKWVQ 12

Scoring table: PAM 150 Gap 15

Searched: 116738 seqs, 37463448 residues

Post-processing: Minimum Match 0% Listing first 100 summaries

Database: pir58 1:pir1 2:pir2 3:pir3 4:pir4

Statistics: Mean 24.661; Variance 36.070; scale 0.684

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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pre-B-cell growth-sti	immediate-early serum	macrophage inflammato	PDGF-inducible JE gly	interleukin-8 - rabbi	monocyte chemotactic	macrophage inflammato	alveolar macrophage c	interleukin-8 precurs	interleukin 8 – sheep	hee	eotaxin precursor - g	eotaxin - rat	interleukin-8 - dog	eotaxin - human		monocyte chemoattract	monocyte chemotactic	monocyte chemoattract	Description						
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#title Human monocyte chemoattractant protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse competence gene JE.

#cross-references MUID:89153805
                                               #journal
#title
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##molecule_type mRNA
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                                                                                                           #authors
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#journal Adv. Exp. Med. Biol. (1991) 305:47-56
#title Human monocyte chemoattractant protein-1 (MCP-1).
#cross-references MUID:92095166
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#cross-references MUID:90290466
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G. Mol. Cell. Biol. (1989) 9:4687-4695
The human homolog of the JE gene encodes a monocyte secretory
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Biochem. Biophys. Res. Commun. (1990) 169:346-351
                                               A chemoattractant
                                                                                                       Bottazzi, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani,
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chemoattractant expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical to monocyte chemoattractant protein-1/monocyte chemotactic and
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#map_position 17q11.2-17q12
CLASSIFICATION #superfamily macrophage inflamm
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J.F.; Kolattukudy, P.E.
#journal Mol. Cell. Biochem. (1993) 126:61-68
The expression of monocyte chemotactic protein (MCP-1) in human vascular endothelium in vitro and in vivo.
#accession 157488
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#title Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel **N-terminally processed form.**

**Cross-references MUID:90211336**
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#cross-references MUID:89165862
#accession A32300
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#accession A32396
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##residues 1-99 ##label LIY
##cross-references GB:S69738; NID:g545464; PID:g545465
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##residues 29-33,'XX',36-52,82-92 ##label DEC
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The PCR, cloning and sequencing of human monocyte chemoattractant protein-1 (MCP-1) gene.
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cytokine; glycoprotein;
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24-28,'Q',30-99 ##label YEQ
#product monocyte chemoattractant protein 1, short form
#status experimental #label MAT2\
#modified_site pyrrolidone carboxylic acid (Gln) (in
mature form) #status experimental\
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#product monocyte chemoattractant protein 1 #status
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#Journal Wempe, F.; Henschen, A.; Scheit, K.H.
#Journal DNA Cell Biol. (1991) 10:671-679
#title Gene expression and cDNA cloning identified a major basic protein constituent of bovine seminal plasma as bovine monocyte chemoattractant protein-1 (MCP-1).
#cross-references MUID:92096117
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monocyte chemoattractant protein 1 precursor - bovine
monocyte chemotactic factor 1; seminal plasma protein P6
#formal_name Bos primigenius taurus #common_name cattle
03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
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Porcine luteal cells express monocyte chemoattractant
protein-1 (MCP-1): Analysis by polymerase chain reaction
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#formal_name Sus scrofa domestica #common_name domestic pig
30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
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##residues 50-68,'X',70-74,'X',76 ##label WE2
##experimental_source seminal vesicle
##experimental_source seminal vesicle
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##residues 1-99 ##label WEM
##cross-references GB:M84602; GB:M85264; NID:g163394; PID:g163395
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Local Similarity 91.7%;
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26/1; 65/2
26/1; 65/2
#superfamily macrophage inflammatory protein
                        J. Immunol. (1991) 146:3483-3488
Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and expression in spleen cells.
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JC2336
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Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
Characterization of the bovine monocyte chemoattrac
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                                                                                                         Yoshimura, T.; Yuhki, N.
J. Immunol. (1991) 146:3483-3488
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                                                                                                                                                                                                                                      I46857 #type complete
monocyte chemoattractant protein-1 - rabbit
#formal_name Oryctolagus cuniculus #common_name domestic
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monocyte chemoattractant protein-1 - bovine
#formal name Bos primigenius indicus #common name zebu cattle
20 Feb-1995 #sequence_revision 20 Feb-1995 #text_change
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##residues 1-125 ##label YOS
##coss-references GB:M57440; NID:9165469; PID:9165470
CLASSIFICATION #superfamily macrophage inflammatory proteins
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This protein induces proteinase secretion and chemo
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Molecular cloning of MCP-3: a human monocyte-derived monocyte chemoattractant protein.
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cytokine; glycoprotein; inflammation
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Human monocyte chemotactic protein-3 (MCP-3): Molecular
cloning of the cDNA and comparison with other chemokines.
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The human MCP-3 gene (SCYAT): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome 17g11.2-q12.
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#journal J. Immunol. (1993) 150:5025-5032

#journal J. Immunol. (1993) 150:5025-5032

#title cDNA cloning of guinea pig monocyte chemoattractant protein-1

#title and expression of the recombinant protein.

#cross-references MUID:93267104
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Scheit, K.H.
Blochem. Blophys. Res. Commun. (1994) 205:148-153
Porcine luteal cells express monocyte chemoattractant protein-2 (MCP-2): Analysis by cDNA cloning and northern
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monocyte chemoattractant protein-2 - pig
#formal_name Sus scrofa domestica #common_name domestic
24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change
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monocyte chemoattractant protein-1 - guinea pig
#formal_name Cavia porcellus #common_name guinea pig
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##experimental_source dermal fibroblast
This protein has eosinophil specific chemotatic activity.
FICATION #superfamily macrophage inflammatory protein
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is protein is a polymorphonuclear leukocyles chemotactic factor
and is involved in the host defense function.
JC2478 #type compiete
eotaxin - rat
eotaxin - rat
formal_name Rattus norvegicus #common_name Norway rat
                                                                                                                                                                                                                                                                                                                                                                                                             Gene (1993) 131:305-306
Cloning of a canine gene homologous
interleukin-8-encoding gene.
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                                                                                                                                                                                                                                                         #superfamily beta-thromboglobulin
#length 95 #molecular-weight 10611 #checksum
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interleukin-8 - dog
interleukin-8 - dog
fformal_name Canis lupus familiaris #common_name dog
19-May-1994 #sequence_revision 19-May-1994 #text_change
12-Apr-1995
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Suzuki, K.
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Pred. No. 1.03e-05
2; Mismatches
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Pred. No. 3.77e-06;
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#authors
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##residues 1-96 ##label JOS
##cross-references EMBL:X77603; NID:9602551; PID:9602552
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FICATION #superfamily macrophage inflammatory protein
W #length 96 #molecular-weight 10753 #checksu
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Similarity 90.9%;
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#formal_name Ovis sp. #common_name sheep
21-Feb-1997 #sequence_revision 21-Feb-1997
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llarity 90.9%;
Conservative
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J. Exp. Med. (1995) 181:1211-1216
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#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
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N.; Wells, T.N.C.; Williams, T.J.; Power, C.A.
Blochem. Biophys. Res. Commun. (1994) 205:788-794
Eotaxin: Cloning of an eosinophil chemoattractant cytol
and increased mRNA expression in allergen-challenged
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interleukin-8 - sheep
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#title Cloning, sequencing, expression and inflammatory activity in skin of ovine interleukin-8.
#cross-references_MUID:35137691
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[FICATION #superfamily beta-thromboglobulin
#length 101 #molecular-weight 11292 #checksum
##residues 1-103 ##label LIN
##cross-references GB:M86923; NID:g164520; PID:g164521
#FICATION #superfamily beta-thromboglobulin
                                    ##molecule_type mRNA
##residues 1-10
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                                                                                                    Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch, M.J.; Weiss, D.J.; Murtaugh, M.P.
J. Biol. Chem. (1994) 269:77-85
Regulation of interleukin-8 expression in porcine alveolar macrophages by bacterial lipopolysaccharide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       #common_name domestic sheep
06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
08-Sep-1997
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interleukin 8 - sheep
#formal_name Ovis orientalis aries,
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#formal_name Sus scrofa domestica #common_name
02-Jun-1995 #sequence_revision 02-Jun-1995 #tea
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Pred. No. 1.03e-05;
2; Mismatches 1
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Pred. No. 1.03e-05;
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*title Molecular cloning of porcine alveolar macrophage-derived neutrophil chemotactic factors I and II; identification porcine II-8 and another intercrine-alpha protein.

*cross-references MUID:93041741

*accession A44253
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Best Local Similarity 75.0%;
Matches 9; Conservative
                                    Matches
                                                   Query Match
Best Local
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#title
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#accession I52322
                                                                                                      ##residues 1-92 ##label RES
##cross-references EMBL:U22414; NID:g790632; PID:g790633
#FICATION #superfemilly macrophage inflammatory protein
WY #length 92 #molecular-weight 10335 #checksu
                                                                                                                                                                         **scatus preliminary; translated from GB/EMBL/DDBJ ##molecule_type mRNA
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##molecule_type mRNA; protein
##residues 1-103 ##label GOO
##experimental_source alveolar macrophage
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71 QICADPKETWVQ 82
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                                                   h 85.6%;
Similarity 75.0%;
                                                                                                                                                                                                                                                                                                                                                                                 152322 #type complete
macrophage inflammatory protein-lalpha - rat
#formal_name Rattus norvegicus #common_name Norway rat
29-May-1998 #sequence_revision 29-May-1998 #text_change
02-Jul-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            #superfamily beta-thromboglobulin
#length 103 #molecular-weight 11677
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alveolar macrophage chemotactic factor-I (AMCF-I)
interleukin-8 homolog - pig
#formal_name Sus scrofa domestica #common_name domestic pig
30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change
                                                                                                                                                                                                                                                                      Shi, M.M.; Godleski, J.J.; Paulauskis, J.D.
Biochem. Biophys. Res. Commun. (1995) 211:289-295
Molecular cloning and posttranscriptional regulation of
macrophage inflammatory protein-1 alpha in alveolar
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                                    Conservative
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                                Score 83; DB 2; I
Pred. No. 1.69e-05;
2; Mismatches 1
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Pred. No. 1.03e-05;
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                                                                                                               **residues 1-101 #*label YOS
##cross-references GB:M57439; NID:g165552; PID:g165553
PRCE $13052
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##cross-references GB:Y10802; NID:g1924937; PID:e294088; PID:g1924938

##experimental_source bone marrow

This protein belongs to the beta-chemokine family which is one of
the major HIV-suppressive factors. It plays roles in autoimmune
processes such as multiple sclerosis and rheumatoid arthritis ar
in tumor biology, and contribute to the trafficking and
                                                                                                                                                                            ##molecule_type mRNA
                                                                                                                                                                                                   ##status
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EICADPKQKWVQ
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Similarity 66.7%;
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monocyte chemotactic protein-2 - human
#formal_name Homo sapiens #common_name man
02-May-1997 #sequence_revision 18-Jul-1997
31-0ct-1997
                                  Beaubien, B.C.; Collins, P.D.; Jose, P.J.; Totty, N. Hsuan, J.; Waterfield, M.D.; Williams, T.J. Biochem. J. (1990) 271:797-801
A novel neutrophil chemoattractant generated during
                                                                                                                                                                                                                                  J. Immunol. (1991) 146:3483-3488

Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and their expression in spleen cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  interleukin-8 - rabbit
neutrophil attractant/activation protein-1
#formal_name Oryctolagus cuniculus #common
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                                                                                                                                                                                                                                                                                                                                                                                              JC5295
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inflammatory reaction in the rabbit peritoneal cavity vivo. Purification, partial amino acid sequence and
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    predicted #label MAT
jth 99 #molecular-weight 11246 #checksum 6596
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KEYWORDS
                                                                      ALTERNATE_NAMES
                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        #title Proc. Natl. Acad. Sci. U.S.A. (1988) 85:3738-3742
Cloning and expression of JE, a gene inducible by
plattelet-derived growth factor and whose product
cytokine-like properties.
#across-references MUID:88234501
#acression A30209
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#journal
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             ##molecule_type DNA; mRNA
##residues 1-148 ##label
##cross-references GB:J04467;
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                                                                                                                                                                                                     EVCADPKKEWVQ 84
                                                                                                                                                                                                                                                      h 82.5%;
Similarity 75.0%;
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                             macrophage inflammatory protein-1-alpha precursor - mouse heparin-binding chemotaxis protein; L2G25B protein; SCI/MIP-la; SIS alpha; stem cell inhibitor/macrophage inflammatory protein 1-alpha; T-cell activation protein
                                                                                                                                                                                                                                                                                                                                                   26/1; 65/2
#superfamily macrophage inflammatory protein cytokine; glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              J. Biol. Chem. (1989) 264:679-682
J. Biol. Chem. (1989) 264:679-682
Platelet-derived growth factor-inducible gene JE is a member of a family of small inducible genes related to platelet
                                                                                                                                                                                                                                                                                                      #binding_site carbohydrate (Asn) (covalent) #status
predicted
#length 148 #molecular-weight 16326 #checksum 5278
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#length 101 #molecular-weight 11402
#formal_name Mus musculus #common_name
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23-33,'X',35,'X',37-46,'X',48-49,'I',51-53 ##label BEA
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                                                                                                                                                                                                                                    Score 80; DB 2; 1
Pred. No. 7.44e-05;
1; Mismatches
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Pred. No. 4.55e-05;
2; Mismatches 1
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; NID:g193488; /
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NID:g193486; PID:g387168; GB:M19682
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#title Sequence of the murine haemopoletic stem cell
inhibitor/macrophage inflammatory protein 1-alpha gene.
#accession S11685
                                                                                                #journal .#title
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    #journal
#contents
                  #title Resolution of the two components of macrophage inflammatory protein 1, and cloning and characterization of one of those components, macrophage inflammatory protein 1 beta.
                                                                                                                                                                                                                                                                                                                                               #authbors Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal J. Immunol. (1989) 142:679-684

A family of small inducible proteins secreted by leukocytes
are members of a new superfamily that includes leukocyte
and fibroblast-derived inflammatory agents, growth factors,
and indicators of various activation processes.

#cross-references_MUID:89093958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          #journal J. Exp. Med. (1988) 167:1939-1944
#title Cloning and characterization of a cDNA for murine macrophage
inflammatory protein (MIP), a novel monokine with
inflammatory and chemokinetic properties.
#cross-references_MUID:88258380
#accession
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#journal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967
#title cDNA sequence of two inducible T-cell genes.
#cross-references_MUID:89184547
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                                                                                                                                                                                                                          ##molecule_type mRNA
##molecule_type mRNA
##residues 1-21,'L',23-61,'A',63-92 ##label BRO
##residues GB:M23447; NID:g533240; PID:g533241
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##cross-references EMBL:X53372; NID:g54062; PID:g297531
##note the authors' translation of the nucleotide sequence
##note differs at several positions from the sequence give
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Davatelis, G.; Tekamp-Olson, P.; w
                                                                                                                                                                   JL0088
Sherry, B.; Tekamp-Olson, P.;
Sherry, G.; Wolpe, S.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    J. Exp. Med. (1989) 170:2189 erratum
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                                                                                                                    J. Exp. Med. (1988) 168:2251-2259
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                                                                                                                                                                   Gallegos, C.;
Masiarz, F.;
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, D.; Merryweather,
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Coit, D.; Ce
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Best Local Similarity 66.7%;
Matches 8; Conservative
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#title
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#journal J. Exp. Med. (1988) 167:570-581
#title Macrophages secrete a novel heparin-binding protein with inflammatory and neutrophil chemokinetic properties.
#cross-references MUID:88154745
#accession A27596
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  #cross-references
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#accession S07723
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##molecule_type protein
##residues 24-33,'XX',36-42 ##label WOL
##residues 70-York 30-Pro, and 39-Thr were also found
                                                                                                                                                       ##cross-references EMBL:X17053; NID:g55530; PID:g55531
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                    Yoshimura, T.; Takeya, M.; Takahashi, K.
Blochem. Blophys. Res. Commun. (1991) 174:504-509
Molecular cloning of rat monocyte chemoattractant protein-1
(MCP-1) and its expression in rat spleen cells and tumor
cell lines.
                                                                                                                                                                                                                                                                                                                                                                                                                                          monocyte chemoattractant protein-1
#formal_name Rattus norvegicus #common_name Norway rat
29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change
                                                                                                                                                                                                                                                                                   Timmers, H.T.M.; Pronk, G.J.; Bos, J.L.; van der Eb, A. Nucleic Acids Res. (1990) 18:23-34
Analysis of the rat JE gene promoter identifies an Ap-1 binding site essential for basal expression but not f
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**superfamily macrophage inflammatory
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MUID:91128376
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Pred. No. 5.18e-04;
3; Mismatches 1
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#journal Science (1993) 261:600-603

#title Signal sequence trap: a cloning strategy
#cross-references MUID:93342488
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##molecule_type mRNA
##residues 1-89 ##label NAG
##cross-references GB:D21072; NID:g413905; PID:d1005177; PID:g468457
                                                                                                                                                                                                                                                                                                                   ##status preliminary; translated from GB/EMBL/DDBJ
##molecule_type mRNA
##residues 1-89 ##label RES
##cross-references GB:L12029; NID:g393179; PID:g393180
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##cross-references GB.M57441; NID:g205333; PID:g205334
##experimental_source spleen cells
the authors translated the codon GAA for residue 62
##note Lys and GCT for residue 63 as Leu
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Local Similarity 75.0%;
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pre-B-cell growth-stimulating factor precursor - mouse
#formal_name Mus musculus #common_name house mouse
02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change
10-Sep-1997
153416 #type complete
interleukin-8 homolog - mouse
#formal_name Mus sp. #common_name mouse
02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change
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#product immediate-early serum-responsive
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Best Local Similarity 58.3%;
                                                          #journal Science (1993) 261:600-603
#title Signal sequence trap: a cloning strategy
proteins and type I membrane proteins.
#cross-references MUID:93342488
#accession I81182
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#title Molecular cloning of TPAR1, a gene whose expression is repressed by the tumor promoter 12-0-tetradecanoylphorbol 13-acetate (TPA).
#cross-references MUID:95073497
#accession 153416
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                             ##molecule_type mRNA
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##residues 1-93 ##label SPO
##cross-references EMBL:U16752; N
##cross-references EMBL:U16752; N
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##cross-references GB:L12030;
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Local Similarity 58.3%;
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cytokine SDF-1-beta - human
#formal_name Homo sapiens #common_name man
21_Dec-1996 #sequence_revision 06-Jun-1997
17-Jul-1998
                                                                                                                                          Tashiro, K.; Tada, Honjo, T.
                                                                                                                                                                                                     cytokine - mouse
#formal_name Mus musculus #common_name house mouse
02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change
28-Feb-1997
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                                            preliminary; translated
             1-93 ##label RES
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Pred. No. 8.37e-04
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Pred. No. 8.37e-04;
3; Mismatches 2
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NID:g393181; PID:g393182
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#journal J. Immunol. (1989) 143:1366-1371
#title Genomic structure of the human monocyte-derived neutrophil
#cross-references MUID:89309826
#accession A37034
                                                                *Submission
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#accession JL0041
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#cross-references MUID:89313739
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                                                                                                  ##cross references GB:M26383; NID:g188627; PID:g188628

**Coss references GB:M26383; NID:g188627; PID:g188628
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Similarity 58.3%;
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interleukin-8 precursor - human
beta-thromboglobulin-like protein; fibroblast-derived
beta-thromboglobulin-like protein; fibroblast-derived
neutrophil-activating factor alpha; lung carcinoma-derived
chemotaxin; lymphocyte-derived neutrophil-activating
factor; monocyte-derived neutrophil chemotactic factor;
monocyte-derived neutrophil-activating factor
#formal_name Homo sapiens #common_name man
08-Dec-1992 #sequence_revision 08-Dec-1992 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          E.J.; Oppenheim, J.J.
J. Exp. Med. (1988) 167:1883-1893
Molecular cloning of a human monocyte-derived neutrophil chemotactic factor (MDNCF) and the induction of MDNCF mRNA by interleukin 1 and tumor necrosis factor.
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#length.93
                                           King, C.H.; Gordon, G.S.; Konieczkov
submitted to the EMBL Data Library,
s37634
                                                                                                                                                                                                                                                              Kowalski, J.; Denhardt, D.T.
Mol. Cell. Biol. (1989) 9:1946-1957
Regulation of the mRNA for monocyte-derived
neutrophil-activating peptide in differentiating
                                                                                                                                                                                                         A32791
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A37034
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Pred. No. 8.37e-04
                                                                                   G.S.; Konieczkowski, M.;
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##cross-references EMBL:Z11686; NID:g33958; PID:g33959 REFERENCE PL0107
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Appella, E.; Oppenheim, J.J.; Leonard, E.J.

#journal Proc. Natl. Acad. Sci. U.S.A. (1987) 84 9233-9237

#title Purification of a human monocyte-derived neutrophil chemotactic factor that has peptide sequence similarity to other host defense cytokines.
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#accession A27488
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#title Purification and partial primary sequence of a chemotactic protein for polymorphonuclear leukocytes derived from human lung giant cell carcinoma LU65C cells.
#cross-references MUID:89279141
#accession PL0107
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#accession A60401
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#residues 23-32,'XR',35,'X',37-52,'L',54 ##label
##experimental_source lung giant cell carcinoma LU65C
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##residues 23-33,'X',35,'X',37-42 ##label VAN
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##residues 28-59 ##label WAL
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J. Immunol. (1990) 144:2223-2232
IL-lalpha or tumor necrosis factor-alpha stimulate release three NAP-1/IL-8-related neutrophil chemotactic proteins human dermal fibroblasts.
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Biochem. Biophys. Res. Commun. (1988) 151:883-890
Structure determination of a human lymphocyte deri
neutrophil activating peptide (LYNAP).
Nakagawa, H.; Hatakeyama, S.; Ikesue, A.; Miyai, H. FEBS Lett. (191) 282:412-414
Generation of interleukin-8 by plasmin from AVLPR-interleukin-8, the human fibroblast-derived
                                                                                                                                                                                      A60591
                                                                                                                                                                                                                                 Van Damme, J.; Decock, B.; Conings, R.; Lenaerts, J.P.;
Opdenakker, G.; Billiau, A.
Eur. J. Immunol. (1989) 19:1189-1194
The chemotactic activity for granulocytes produced by virally infected fibroblasts is identical to monocyte-derived
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                                                                                                                                                                                                           interleukin 8.
                                                                                                                                                                                                                                                                                                                                                                                            a minor component of this material (15%) includes additional two amino acids at the amino end
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##molecule_type protein

##residues 21-33,'X',35,'X',37-47 ##label YO2

##residues the forms starting from positions 21, 23, and

represented 8%, 47%, and 45%, respectively,

interieukin-8
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#journal
#title
                                          K.; Mizumo, S.; Suzuki, K.

#journal Immunol. Lett. (1990) 24:165-170

#title Coding region structure of interleukin-8 gene of human lung
giant cell carcinoma LU65C cells that produce
LUCT/interliukin-8: homogeneity in interleuki-8 genes.

#cross-references MUID:90346419
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Biochem. J. (1991) 275:581-584
#title Formation of neutrophil-activating peptide 2 from
platelet-derived connective-tissue-activating pe
by different tissue proteinases.
#cross-references MUID:91248085
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#cross-references MUID:91243843
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##residues 28-47 ##label VA3
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##residues 21-67 ##label VA2
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  of annotations
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Van Damme, J.; Van Beeumen, J.; Opdenakker, G.; Billiau, A. J. Exp. Med. (1988) 167:1364-1376
A novel, NH-2-terminal sequence-characterized human monokine possessing neutrophil chemotactic, skin-reactive, and granulocytosis-promoting activity.
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Mol. Immunol. (1989) 26:87-93
Three forms of monocyte-derived neutrophil chemotactic
(MDNCF) distinguished by different lengths of the
amino-terminal sequence.
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Purification of granulocyte chemotactic peptide/interleukin-8
reveals N-terminal sequence heterogeneity similar to that
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  omitted.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Appella, E.; Matsushima, Leonard, E.J.
                                                                                                                                                                               J.; Tagawa, M.; Hashimoto,
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Query Match
Best Local Similarity

77.3%;

Score 75; Pred. No.

DB 2; L

Length 99;

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Best Local Similarity 66.7%;
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#title
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                                                             #title Cloning, genomic organization, and chromosomal localization of the Scya5 gene encoding the murine chemokine RANTES.
#cross-references MUID:94132613
#accession 148875
                                                                                                                                                                                                                                                                                                                                                       #authors
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*cross-references MUID:94065176
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##molecule_type DNA
##roadding-
##experimental_source macrophage cell li
##note sequence extracted from
                                                                                                                                                                                        ##residues 1-91 ##label DAN
##cross-references EMBL:U02298; NID:g460090;
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                                         ##molecule_type mRNA
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monocyte chemoattractant cytokine RANTES precursor -
MuRantes
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              148148 #type complete
Neutrophil attractant protein-1 - guinea pig
#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
                                                                                                                                                                            A46539
                                                                                                                                                                                                                                                                                                                    J. Immunol. (1994) 152:1182-1189
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#length 101 #molecular-weight 11.
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J. Immunol. (1993) 151:6225-6236
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             1-18,'A',20-91 ##label SCH
source macrophage cell line PU5-1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         #molecular-weight 11414
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Pred. No. 8.37e-04;
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Ecst Local Similarity 58.3%;
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        **authors Neilson, E.G.; Krensky, A.

#journal Kidney Int. (1992) 41:220-225

#title Isolation and characterization of cDNA from renal tubular epithelium encoding murine Rantes: A small intercrine from the Scy superfamily.

#cross-references MUID:92277990

#accession 156970
                                                                                            Query Match
Best Local
                                                                      Matches
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                                                                                                                                                                                                                                                                             #authors Sporn, S.A.; Eierman, D.F.; Johnson, C.E.; Morris, J.;

Martin, G.; Ladner, M.; Haskill, S.

#journal J. Immunol. (1990) 144:4434-4441

#title Monocyte adherence results in selective induction of novel genes sharing homology with mediators of inflammation and tissue repair.

#cross-references MUID:90257367

#accession C60407
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#journal Mol. Cell. Biol. (1994) 14:2914-2925
#title Definition of a lipopolysaccharide-responsive element in the 5'-flanking regions of MuRantes and crg-2.
#cross-references_MUID:94217689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       #accession
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                                                                                                                                                           ##status preliminary; not compared with conceptual translation
##molecule_type mRNA
##residues 1-50 ##label SPO
IFICATION #superfamily macrophage inflammatory protein
RY #length 50 #checksum 9927
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##residues 1-40,'E',42-91 ##label NEI
##cross references GB:M77747; NID:g200649; PID:g200650
##cross references GB:M77747 monocytes but not neutrophils is
immediate-early response protein to LPS stimulation.
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                                                                                         Match 74.2%;
Local Similarity 58.3%;
30 QVCADPSESWVQ 41 ::|||| : |||
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C60407 **type fragment monocyte adherence-induced protein 5 beta - human (fragment) #formal_name Homo sapiens #common_name man 06-Nov-1992 #sequence_revision 06-Nov-1992 #text_change
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#status predicted #label MAT
#length 91 #molecular-weight 10071 #checksum 3010
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                                                               Score 72; DB 2; I
Pred. No. 3.47e-03;
3; Mismatches 2
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QY 1 EICADPKQKWVQ 12

Search completed: Thu Apr 1 07:24:36 1999 Job time: 24 secs.

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1	97	100.0	99	₽ :	MCP1_HUMAN	MONOCYTE CHEMOTACTIC P	2.70e-10
2	97	100.0	101	۲	MCP1_CANFA	CHEMOTACTIC	
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σ		94.8	99	<b>ب</b>	MCPA_BOVIN		5.26e-09
7		93.8	125	سر	MCP1_RABIT	MONOCYTE CHEMOTACTIC P	9.47e-09
ω		92.8	97	سر	EOTA_RAT	EOTAXIN PRECURSOR (EOS	
Q		92.8	97	سر	EOTA_MOUSE	EOTAXIN PRECURSOR (EOS	1.70e-08
10		92.8	99	<b>ب</b>	MCP3_HUMAN	MONOCYTE CHEMOTACTIC P	1.70e-08
11		91.8	97	سر	EOTA_HUMAN	EOTAXIN PRECURSOR (EOS	3.05e-08
12		90.7	99	ш	MCP2_PIG	MONOCYTE CHEMOTACTIC P	5.44e-08
13		90.7	120	۳	MCP1_CAVPO		5.44e-08
14		88.7	104	ب	MCP5_MOUSE	MONOCYTE CHEMOTACTIC P	1.73e-07
15		86.6	96	ب	EOTA_CAVPO	EOTAXIN PRECURSOR (EOS	5.42e-07
16		86.6	101	۳	IL8_CANFA	INTERLEUKIN-8 PRECURSO	•
17		86.6	101	<u>د م</u> و	IL8_SHEEP	INTERLEUKIN-8 PRECURSO	•
18		86.6	103	μ	IL8_PIG	INTERLEUKIN-8 PRECURSO	
19		85.6	92	<u>س</u>	MI1A_RAT	MACROPHAGE INFLAMMATOR	•
20		84.5	74	μ	MCPB_BOVIN	MONOCYTE CHEMOTACTIC P	1.69e-06
21		84.5	99	_	MCP2_HUMAN	CHEMOTACTIC	. 69e
22		83.5	68	-	MIP4_HUMAN	MACROPHAGE INFLAMMATOR	•
23		83.5	101	٢	IL8_BOVIN	INTERLEUKIN-8 PRECURSO	•

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01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)
(MONOCYTE CHEMOATTRACTANT PROTEIN 1) (HCll) (SMALL INDUCIBLE CYTOKINE
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SHYY Y.J.,
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MEDLINE;
ROLLINS B
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DECOCK B.,
                                                                                                    ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAK SHABANOWITZ J., HUNT D.F., APPELLA E.; PROC. NATL. ACAD. SCI. U.S.A. 86:1850-1854(1989)
                               BIOCHEM.
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LI Y.S., SHYY Y.J.,
KOLATTUKUDY P.E.;
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CHANG H.C., HSU F.
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MEDLINE; 89153605.
YOSHIMURA T., YUHKI N.,
LEONARD E.J.;
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LARSEN C.G., OPPENHEIM
BIOCHEM. BIOPHYS. RES.
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EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; PRIMATES.
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   STRUCTURE MODELLING
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1:388-399(1989).
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9:4687-4695(1989)
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ES. COMMUN. 169:346-351(1990).
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                             LENAERTS J.-P., BILIAU A., VAN DAMME COMMUN. 167:904-909(1990).
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FEBS LETT. 395:277-282(1996).
-i- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
ACTIVITY. HAS BEEN IMPLICATED IN THE PARTHOGENESIS OF DISEASES.
CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID
ARTHRITIS OR ATHEROSCLEBOSIS. MAY BE INVOLVED IN THE RECRUITMENT
OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
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MEDLINE; 97143315.
LUBKOWSKI J., BUJACZ G., DOMAILLE P.J.,
NAT. STRUCT. BIOL. 4:64-69(1997).
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MEDLINE; 96234959.
HANDEL T.M., DOMAILLE P.J.;
BIOCHEMISTRY 35:6569-6584(1996).
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GRONENBORN A.M., CLORE G.M.;
PROTEIN ENG. 4:263-269(1991)
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MEDLINE; 97053697
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ZHANG Y.J., RUTLED
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S03339; S03339.

IDOK; I2-MAR-97.

IDOL; I2-MAR-97.

IDOM; I4-CCT-96.
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PYM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET CELL SELECTIVITY. DELETION OF THE AMINO- TERMINAL RESIDUE CONVERTS IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOATTRACTANT.

SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                    M31626 G386961;
M31625 G386961;
M31625 G386961;
M24545 G307163;
M424545 G307163;
M424768 G34514;
M37719 G487124;
M37719 G487124;
M32725 G338007;
M328224 G338007;
M28224 G338007;
M28224 G338007;
M28224 G338007;
M28234 G338007;
M28334 G34868;
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XIS; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
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4:64-69(1997).
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A ROSSEN R.D., SMITH C.W., ENTMAN M.L.;
CIRCULATION 95:693-700(1997).
C I. CIRCULATION 95:693-700(1997).
C I. CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
C REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYCCARDIUM.
C MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE
C REPERFUSED MYCCARDIUM.
C I. SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
C I. INDUCTION: BY INF-ALPHA.
C I. TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAR
C VEINS, AND INFILTRATING LEUKOCYTES.
C I. SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
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Best Local
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01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOATTRACTANT PROTEIN-1).
SCHAZ OR MCP1.
CANTS FAVOTO-1
                                                                                                                                                                                                                          DISULFID
DISULFID
SEQUENCE
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                                                                                                                                                                                                                                                                                                     MOD_RES
                                                                                                                                                                                                                                                                                                                          CHAIN
                                                                                                                                                                                                                                                                                                                                            SIGNAL
                                                                                                                                                                                                                                                                                                                                                              CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                 EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KUMAR A.G., BALLANTYNE C.M., MICHAEL L.H., LINDSEY M.L., HAWKINS H.K., BIRDSALL H.H., ROSSEN R.D., SMITH C.W., ENTMAN M.L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-JUGULAR VEIN ENDOTHELIAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EUTHERIA; CARNIVORA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CANIS FAMILIARIS (DOG).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                 PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE;
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                                                                                                                73 EICADPKQKWVQ
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Similarity 100.0%;
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9653; G1144186; -
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larity 100.0%;
Conservative
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STANDARD;
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XIS; SIGNAL; INFLAMMATO
                                                                                                                                                                                                                                                                                                 101
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MISSING: 83% REDUCTION IN AC
D->A: 90% REDUCTION IN AC
N->A: 50% REDUCTION IN AC
R->F: 95% REDUCTION IN AC
S->Q: 40% REDUCTION IN AC
S->Q: 10% REDUCTION IN AC
Y->D: LOSS OF ACTIVITY.
R->L: LOSS OF ACTIVITY.
D->L: 90% REDUCTION IN AC
D->L: 90% REDUCTION IN AC
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BY SIMILARITY.
A7075B14 CRC32;
                                                                                                                                                                                                                                                                                 PYRROLIDONE CARBOXYLIC ACID SIMILARITY).
                                                                                                                                                                                                                                                                                                                    INFLAMMATORY RESPONSE.
BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERTEBRATA;
PRT;
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2.70e-10;
-hes 0;
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. 2.70e-10;
----hes 0;
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                                                                                                                                                                                   Length 101;
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                                                                                                                                                                                                                                                                                                   N 1.
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01-NOV-1995 (REL. 3
01-NOV-1995 (REL. 3
15-JUL-1998 (REL. 3
                                              PROSITE; I
                                                                                                                                                                                                                                                                                                                                                                                                                               MCP2_BOVIN STANDARD; PRT; 99 AA.

[099141;
01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
DISULFID
SEQUENCE
                                                             -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY
C-C) (CHEMOKINE CC).
EMBL; S67954; E118856; -.
EMBL; S67956; G544997; -.
EMBL; S67956; G544997; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHAIN
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                          SIGNAL
                                                                                                                                                                                              WEMPE F., HANES J., SCHEIT K.H.;
DNA CELL BIOL. 13:1-8(1994).
-I- FUNCTION: CHEMOTACTIC FACTOR
CAN BIND HEPARIN.
                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. MEDLINE; 94114084.
                                                                                                                                                                                                                                                                                                                                                                 BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; Z48479; G683717; -.
EMBL; X79416; G872313; -.
PROSITE; PS00472; SMALL_C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -!- SUBUNIT: MONOMER OR
-!- SIMILARITY: BELONGS
C-C) (CHEMOKINE CC).
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TISSUE-BRAIN;
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01.NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
                                                                                                                                                                                                                                                                                                                                               EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                             SCYA8 OR MCP2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUS SCROFA (PIG).
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||||:||||||
1 EICADPKQKWVQ 12
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; CHEMOTAXIS; S
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AA;
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XIS; SIGNAL; INFLAMMATORY RESPONSE.
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10976
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                                                                                                                                                                                                                                                                                                                                                                 CHORDATA; VERTEBRATA;
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                                            SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ¥
                                                                                                                                                                                                                 FACTOR THAT
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Pred. No. 4.91e-10;
1; Mismatches 0
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BY SIMILARITY.
ECC3AFB4 CRC32
  HEPARIN-BINDING;
BY SIMILARITY.
MONOCYTE CHEMOTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PYRROLIDONE CARBOXYLIC SIMILARITY).
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MONOCYTE CHEMOTACTIC PROTEIN
    CHEMOTACTIC PROTEIN
                                                                                                                                                                                                                 ATTRACTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CRC32;
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MONOCYTES,
                                                                                                                                                                                                                 MONOCYTES.
                                              INFLAMMATORY RESPONSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
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                                                                                                                                                                       SIMILARITY)
                                                                                                                                                    (SMALL CYTOKINE
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Best Local :
                                                                                                                                                    DISULFID SEQUENCE
                                                                                                                                                                                                                                                                                                                                  MEDLINE: 97341179.

BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOURBAGY N., APPELBAUM E., REAPE T.J., BRAWNER M., MAKWANA J., FOLEY J.J., SCHMIDT D.B., IMBURGIA C., MACNUITY D., MATTHEWS J., O'DONNELL K., O'SHANNESSY D., SCOTT M., GROOT P.H.E., MACPHEE C.; J. BIOL. CHEM. 272:16404-16413(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GARCIA-ZEPEDA E.A., COMBADIERE C., LAVIGNE F., HAMID Q., MURPHY P.M., J. IMMUNOL. 157:5613-5626(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q99616;
15-JUL-1998 (REL. 36, CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE CHEMOATTRACTANT PROTEIN 4) (CK-BETA10) (NCC-1).
SCYA13 OR MCP4 OR NCC1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               UGUCCIONI M., LOETSCHER P., FORSS:
LI Y., KREIDER B., GAROTTA G., TH
J. EXP. MED. 183:2379-2384(1996).
-!- MASS SPECTROMETRY: MW=9314; MW_ERR=30; METHOD=MALDI; RAN-
-!- MASS SPECTROMETRY: MW=8760; MW_ERR=30; METHOD=MALDI; RAN-
-!- MASS SPECTROMETRY: MW=8575; MW_ERR=30; METHOD=MALDI; RAN-
-!- TISSUE SPECTROMETRY: MW=8575; MW_ERR=30; METHOD=MALDI; RAN-
-!- TISSUE SPECTROITY: WIDELY EXPRESSED. FOUND IN SMALL INTI-
-!- THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOI-
SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
-!- THIS PROTEIN CAN BIND HEPARIN.
                                                                                         ----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
                                  ++
                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-FETAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE; 96235049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-HEART
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EUTHERIA; PRIMATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HOMO SAPIENS (HUMAN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MCP4_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE; 97113354.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    73 DVCADPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 EICADPKOKWVO 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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75
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G., THELEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score
Pred.
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BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              94; DB 1; 1
No. 1.61e-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ROTHENBERG M
LUSTER A.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                       22-33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-98.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEWALD B.,
BAGGIOLINI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             M.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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  ISOFORMS (LA)MCP-4 AND SIGNAL CLEAVAGE.
MCP-4.
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                                                                         INTESTINE,
                                                                                                                                RANGE-17-98.
RANGE-22-98.
                                                                                                                   RANGE-24-98
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ID CPA_BOVIN

AC P28291;

AC P28291;

DT 01-DEC-1992 (REL. 24, CREATED)

DT 01-DEC-1995 (REL. 32, LAST SEQUENCE UPDATE)

DT 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)

DE MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC SEMINAL FLUID PROTEIN).

OS BOS TAURUS (BOVINE).

OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;

CE EUTHERIA; ARTIODACTYLA.
                            STITITE OF STREET
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Query Match
Best Local Similarity
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Best Local
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DISULFID
SEQUENCE
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DISULFID
DISULFID
CARBOHYD
SEQUENCE
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SIGNAL
                                                                                                                                                  EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL;
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                                                                           CHAIN
                                                                                                                         PIR;
                                                                                                                                        EMBL;
                                                                                                                                                                                    WEMPE F., KUHLMANN J.K., SCHEIT K.H.;
BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES,
                                                                                                                                                                                                                                              MEDLINE; 92181448.
WEMPE F., EINSPANIER R
BIOCHEM. BIOPHYS. RES.
                                                                MOD_RES
                                                                                   SIGNAL
                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                    DNA CELL
                                                                                                                                                                                                                                                                                                             MEDLINE; 92096117
WEMPE F., HENSCHE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MIM; 601391;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                            CYTOKINE;
                                                                                                      PROSITE;
                                                                                                                                                                                                                                                                         TISSUE-SEMINAL PLASMA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE; PS00472;
                                                                                                                HSSP;
                                                                                                                                                                                                                    MEDLINE; 94338337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   72 EICADPKEKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 EICADPKQKWVQ 12
                                                                                                                                                             G-0
                                                                                                                                                                     SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                              A39296; A39296.
JC2336; JC2336.
; P13500; IMCA.
                                                                                                                                                                               NEUTROPHILS.
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                                                                                                                                        L32659; G624394; -. M84602; G163395; -.
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11; Conser
                                                                                                    PS00472;
                                                                                                                                                                                                                                                                                                     BIOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHEMOTAXIS;
                                                                                           CHEMOTAXIS;
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BIOL. 10:671-679(1991).
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llarity 91.7%;
Conservative
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XIS; SIGNAL; GLYCOPROTEIN;
                                                                                           SMALL_CYTOKINES_CC;
KIS; SIGNAL.
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94.8%;
91.7%;
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S. COMMUN. 183:232-237(1992).
                                                                                                                                                                                                                                                                                                              SCHEIT K.H.;
                           MW;
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Score 92;
Pred. No.
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Pred. No. 2.92e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL.
DF52F6EC
                                    PYRROLIDONE CARBOXYLIC SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
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PYRROLIDONE CARBOXYLIC
BY SIMILARITY.
BY SIMILARITY.
                                                                          MONOCYTE
                                                                                  BY SIMILARITY
                             C8F5821D
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5.26e-09;
                                                                          CHEMOTACTIC
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          DB 1;
                             CRC32;
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Best Local
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DISULFID
CARBOHYD
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01-DEC-1992
15-JUL-1998
                                                                                                                                                           SEQUENCE FROM N.A. WILLIAMS C.M., NEWTON FLANAGAN B.F.;
                                                                                                                                                                                                                                                                                                                  15-JUL-1998 (REL. 36, CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROPERTY OF THE PROPERTY OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
STRAIN-NEW ZEALAND WHITE;
MEDLINE; 91225489.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIGNAL
CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE; JACANICAL N.;
YOSHIMURA T., YUHKI N.;
J. IMMUNOL. 146:3483-3488(1991).
J. IMMUNOL. 146:3483-3488(1991).
THEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES,
                                                                                                                                                                                                                                                                                                 EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               EOTA_RAT
P97545; 008780;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORYCTOLAGUS CUNICULUS (RABBIT).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-DEC-1992 (REL. 24, CREATED)
01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONICITE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MCP1_RABIT
P28292;
                                                        TISSUE-LUNG;
                                                                               SEQUENCE FROM
                                                                                                                                        SUBMITTED
                                                                                                                                                                                                                                                                          EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NEUTROPHILS.
-!- SUBUNIT: MONOMER OR HOMODIMER;
-!- SIMILARITY: BELONGS TO THE INTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EUTHERIA; LAGOMORPHA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOKINE; CHEMOTAXIS;
                            SHII Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    74 ICADPKQKWVQ
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Similarity 100.0%;
11; Conservative
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                                                                                                                                        (DEC-1996)
(MAY-1997)
                                                                                                                                                                                                                                                                                                 METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            125 AA;
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EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                  EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               X
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 91; I
Pred. No. 9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                        WILSON
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MONOCYTE CHEMOTACTIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFLAMMATORY RESPONSE; GLYCOPROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MER; IN EQUILIBRIUM (BY INTERCRINE BETA FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FBAC9D27 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                        S.A.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97
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9.47e-09;
                                                                                                                                                                                        COLEMAN J.C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B
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(SMALL CYTOKINE
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THE SULP AND SOCIOUS CONTRACTOR SEED TO SOCIOUS 
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Best Local S
Matches 1
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01-FEB-1996 (REL. 3
15-JUL-1998 (REL. 3
EOTAXIN PRECURSOR (
                                                                                                                                                                                                                             IMMUNITY 4:1-14(1996).

IMMUNITY 4:1-14(1996).

-!- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.

-!- SUBCELIULAR LOCATION: EXTRACELULAR.

-!- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.

EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL EXPRESSED CONSTITUTIVELY IN THE THYMUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-FEB-1996
01-FEB-1996
15-JUL-1998
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CONFLICT
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                                                                                    C-C) (CHEMOKINE CC).
EMBL; U26426; G995911; -.
EMBL; U40672; G1113937; -.
MGD; MGI:103576; SCYA11.
                                                                                                                                                      -!- INDUCTION: BY INTERFERON GAMMA AND LIPOPOLYSACCHARIDE (LPS).
-!- PTM: O-GLYCOSYLATED (PROBABLE).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTY C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN-C57BL/6J; (MEDLINE; 96158746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EOTA_MOUSE
P48298;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GONZALO J.-A., JIA G.-Q., AGUIRRE JENKINS N.A., LIN G.-S., KATZ H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROC. NATL. ACAD. SCI. U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE; 96004658.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SCYA11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GUTIERREZ-RAMOS J.-C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; Y08358; E274141; -.
EMBL; U96637; G2098785; -.
                                          PROSITE; PS00472; SMALL_CYTOKINES, EOSINOPHIL; CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE-LUNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFLAMMATORY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, & FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMIL SUBCELLULAR LOCATION: EXTRACELLULAR.

PTM: O-GLYCOSYLATED (PROBABLE).

SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SCC-C) (CHEMOKINE CC).
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11; Conser
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24 97
32 57
32 73
94 94
RESPONSE.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE-LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       33, CREATED)
33, LAST SEQUENCE UPDATE)
36, LAST ANNOTATION UPDATE)
(EOSINOPHIL CHEMOTACTIC PRO
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91.7%;
                                          _CYTOKINES__CC; 1.
HEMOTAXIS; GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Œ;
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Pred. No. 1.70e-08;
0; Mismatches
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ECTAXIN.
BY SIMILARITY.
BY SIMILARITY.
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POTENTIAL
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92:8960-8964(1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VERTEBRATA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          V., FRIEND D., COYLE A.J.,
LICHTMAN A., COPELAND N.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S (IN REF.
LED45 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROTEIN).
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                                            SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (SMALL CYTOKINE
                                                                                                                                                                              (SMALL CYTOKINE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KOPF M.,
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PRESULT OF STREET OF STREE
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Best Local Similarity
Matches 11; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE; 94375065.
OPDENAKKER G., FITEN P., NYS
LAUREYS G., VAN DAMME J.;
GENOMICS 21:403-408(1994).
MEDLINE; 97263733.

MEUNIER S., BERNASSAU J.-M., GUILLEMOT J.-C., FERRARA P., LAN BUCKLEMISTRY 36:4412-4422(1997).

FINCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND EOSLINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHAIN
DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.

MEDLINE; 93305913.

MINTY A., CHALON P., GUILLEMOT J.C., KAC
MAGAZIN M., MILOUX B., MINTY C., RAMOND
SHIRE D., FERRARA P., CAPUT D.;
EUR. CYTOKINE NETW. 4:99-110(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA;
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-DEC-1992 (REL. 24, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP
CHEMOATTRACTANT PROTEIN 3) (NC28).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OPDENAKKER G., FRO BIOCHEM. BIOPHYS.
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P80098;
                                                                                                                                                                                                                                                                                 [6]
STRUCTURE BY NMR.
9726373?
                                                                                                                                                                                                                                                                                                                                                                       STRUCTURE BY NMR, MEDLINE; 97053697
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 VAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE; 92308855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE=OSTEOSARCOMA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE OF 30-99.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 71 EICADPKKKWVQ
|||||||
1 EICADPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                           N DAMME J., PROOST P., LENA
EXP. MED. 176:59-65(1992).
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                                                                                                                                                                                                                                                                                                                                    RAJARATHNAM K., CL
395:277-282(1996).
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33
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;
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57
73
10893
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                                                                                                                                                                                                                                                                                                                                                                                            SUBUNIT.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SAN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                LENAERTS
                                                                                                                THE INTERCRINE
                                                                                                                                                                                                                                                                                                                                                        CLARK-LEWIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 90; DB 1; 1
Pred. No. 1.70e-08;
0; Mismatches
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BY SIMILARITY.
BY SIMILARITY.
F85A96BC CRC32;
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191:535-542(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FROYEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                J.-P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-67
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A N., LUPKER
                                                                                                                                                                                                                                                                                                                                                        B.D.;
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THIS PROTEIN
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                                                                                                                                                                                                                                                              DARBON
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                                                                                                            CYTOKINE
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Best Local
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P51671; P50877; Q92490; Q:
01-OCT-1996 (REL. 34, CAS:
01-OCT-1996 (REL. 34, LAS:
01-NOV-1997 (REL. 35, LAS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
CONFLICT
CONFLICT
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MOD_RES
DISULFID
DISULFID
                                                                                                                                            MEDLINE; 96205964.
KITAURA M., NAKAJIMA T., IMAI T., HA
KITAURA M., NOSHIE O.
TIFFANY H.L., MURPHY P.M., YOSHIE O.
T. BIOL. CHEM. 271:7725-7730(1996).
GARCIA-ZEPEDA E.A., ROTHEN MORTON C.C., LUSTER A.D.;
GENOMICS 41:471-476(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE; PS00472; SMALL_CYTOKINES_CC; CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
                                                                                         BARTELS J., SCHLUETER C., CHRISTOPHERS E., SCHROEDE
                                                                                                  MEDLINE; 96:
BARTELS J.,
                                                                                                                                                                                                                                          PONATH P.D., Q
SMITH H., SHI
                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. MEDLINE; 96189937.
                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. MEDLINE; 96181758. GARCIA-ZEPEDA E.A.,
                                                                                                                                                                                                                                                                                                                                                     HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                            EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
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SIGNAL
                                       TISSUE-PLACENTA;
MEDLINE; 97312708.
                                                                                                                                SEQUENCE FROM N.A.,
                                                                                                                                                                               TISSUE-SMALL INTESTINE;
MEDLINE; 96205964.
                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                 MACKAY C.R.;
                                                           SEQUENCE FROM N.A.
                                                                                 BIOCHEM.
                                                                                                                       TISSUE-FORESKIN;
                                                                                                                                                                                                                                                                                            NAT. MED.
                                                                                                                                                                                                                                                                                                      LUSTER A.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       73 EICADPTQKWVQ
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; S32222; S32222.
; A54678; A54678.
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11; Conser
                                                                                 BIOPHYS.
                                                                                                             96374440.
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(REL. 34, LAST SEQUENCE UP)
(REL. 35, LAST ANNOTATION
                                                                                                                                                                                                                                        QIN S., RINGLER D.J., CLARK-LEWIS I., WANG J. IX., GONZALO J.A., NEWMAN W., GUTIERREZ-RAMOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                           SCHROEDER
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                                                                                 RES.
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                                                                                                 RICHTER
                                                                                          Ч.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 90; DB 1; I
Pred. No. 1.70e-08;
0; Mismatches 1
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PYRROLIDONE CARBOXYLIC ACID.
BY SIMILARITY.
BY SIMILARITY.
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; GLYCOPROTEIN;
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4).
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R.,
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                                                                                                   KULKE
                             s.,
                                                                                                                                 AND VARIANTS
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Best Local S
Matches 1
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EMBL; U34700; G1185440; --
EMBL; D49372; G1552241; --
EMBL; Z69291; E221070; --
EMBL; Z75668; E251275; --
EMBL; Z75669; E251278; --
EMBL; Z75669; E251258; --
EMBL; U46572; G2088509; --
EMBL; Z92709; E329504; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
TISSUE-LUNG;
MEDLINE; 97445071.
HEIN H., SCHLUETER
                                                                                                                                                                                                                                   MCP2_PIG STANDARD; PRT; 99 AA.
P49873;
01-0CT-1996 (REL. 34, CREATED)
01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                          VARIANT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
DISULFID
VARIANT
VARIANT
                                 EMBL; 241
PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIGNAL
                                                                                                                        SEQUENCE FROM N.A.
MEDLINE; 95091716.
HOSANG K.K., KNOKE I.I., KLAUDINY J.J.,
SCHEIT K.K.;
                                                                                                                                                                                SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHO
EUTHERIA; ARTIODACTYLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).

I FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.

I SUBCELLULAR LOCATION: EXTRACELLULAR.

I PIM: O-GLYCOSYLATED (PROBABLE).

I INDUCTION: BY TNF-ALPHA, IL-1-ALPHA AND INTERFERON GAMMA.
                                                                                                                 BIOCHEM.
                                                                                                                                                                                                                      SCYA8
                                                                                                                                                                                                                             CHEMOATTRACTANT PROTEIN 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VARIANT
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            SIGNAL
                        CYTOKINE;
                   I- FUNCTION: CHEMOTACTIC FACTOR THAT A
CAN BIND HEPARIN.
I CAN BIND HEPARIN.
I- SUBUNIT: MONOMER OR HOMODIMER; IN E
I- SIMILARITY: BELONGS TO THE INTERCRI
I- C-C) (CHEMOKIME CC).
MBL; Z48480; G683719;
ROSITE: PS00472; SMALL_CYTOKINES_CC; 1
TYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NFLAMMATORY
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nes 10; Conse
                                                                                                                                                                                                                                                                                                                                                                       71 DICADPKKKWVQ 82
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1 EICADPKQKWVQ 12
                                                                                                                                                                                                                                                                                                               12
                                                                                                                                                                                                                      OR MCP2
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SCHLUETER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PS00472; SMALL_CYTOKINES_CC; IL; CYTOKINE; CHEMOTAXIS; GLYTORY RESPONSE; POLYMORPHISM.
                                                                                                                 BIOPHYS. RES.
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                                                                                                                 COMMUN.
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                                                                 HOMODIMER; IN EQUILIBRIUM (BY TO THE INTERCRINE BETA FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                            W.
                                                                                                                                                                                                                                                                                                                                                                                                      Score 89;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
I CIONE 3
A -> T (IN CLONE 3
R -> S (IN CLONE 5
R -> R (IN CLONE 5
          HEPARIN-BINDING;
BY SIMILARITY.
MONOCYTE CHEMOTACTIC
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                                                                                                                                                                                             VERTEBRATA;
                                                                                                  205:148-153(1994).
DR THAT ATTRACTS MONOCYTES.
                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                       DB 1; L
                                                                                                                                                                                                                                                                                                                                                                                                                                          CRC32;
                                                                                                                                     WEMPE F.F.,
                                                                                                                                                                                             TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                 Length 97;
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34).
53).
                      INFLAMMATORY RESPONSE
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PROTEIN 2
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                                                                                                                                       WUTTKE
                                                               SIMILARITY).
(SMALL CYTOKINE
                                                                                                    THIS PROTEIN
                                                                                                                                       E.E.
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Matches 1
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Best Local
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                                                                                                                               MCP5_MOUSE STANDARI
Q62401;
01-NOV-1997 (REL. 35, 0
01-NOV-1997 (REL. 35, 1
15-JUL-1998 (REL. 36, 1
MONOCYTE CHEMOTACTIC PI
                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
DISULFID
CARBOHYD
SEQUENCE
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PROSITE; 1
CYTOKINE;
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Q08782;
Q1-NOV-1995 (REL. 32, CREATED)
Q1-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
                                   CHEMOKINE).
SCYAI2 OR MCP5.
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAKOA; CHORDATA;
EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHEMOATTRACTANT PROTEIN-1).
SCYA2 OR MCP1.
CAVIA PORCELLUS (GUINEA PIG).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NEUTROPHILS.
-!- SUBUNIT: MONOMER OR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        J. IMMUNOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN=Z; TISSUE=S
MEDLINE; 93267104.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOD_RES
 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -!- FUNCTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        YOSHIMURA T.
                                                                                                                                                                                                                                                                                                                                           71 EVCADPTQKWVQ 82
                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
nes 10; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             73
                                                                                                                                                                                                                                                                                                         \vdash
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C-C)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13
                                                                                                                                                                                                                                                                                                         EICADPKQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EVCADPQQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   L04985; G349821; -.
PE; PS00472; SMALL_CYTOKINES_CC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHEMOTAXIS; SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      33
34
97
120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    150:5025-5032(1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ISSUE=SPLEEN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24
24
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                35
4
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                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ĀĄ;
                                                                                                                                                                                                                                STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23
120
24
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                                                                                                                                                                                                                                                                                                                                                                                                   90.7%;
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    CREATED)
    LAST SEQUENCE UPI
    LAST ANNOTATION (
PROTEIN 5 PRECURS)

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73
97
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              M.
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                                                                                                                                                                                                                                                                                                                                                                               Score 88;
Pred. No.
1; Misma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 88;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; INFLAMMATORY RESPONSE; GLYCOPROTEIN. BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 1.
PYRROLLDONE CARBOXYLIC ACID (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PYRROLIDONE CARBOXYLIC ACID SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
                                                         VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B7620BCF CRC32;
                                                                                                                                   PRECURSOR (MCP-5)
                                                                                                                                                                                                                                                                                                                                                                                                                                                            22FAD257 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                      UPDATE)
                                                                                                                                                                                                                                                                                                                                                                             . 5.44e-08;
                                                                                                                                                                                                                                104
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5.44e-08;
                                                                                                                                                    UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                      DB 1;
                                                                                                                                                                                                                                A
                                                                                                                                                                                                                                                                                                                                                                                                                    Length 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                   (MCP-1 RELATED
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                                                                                                                                                                                                                                                                                                                                                                                 Indels
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(SMALL CYTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (BY
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                                                                                                                                                                                                                                                                                                                                                                                 Gaps
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THE SULPTON TO SEE THE SULPTON T
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C-C) (CHEMOKINE CC).
EMBL; U50712; G1477582; -.
EMBL; U56670; G1881583; -.
MGD; MGI:108224; SCYA12.
PROSITE; PS00472; SMALL_CYTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P80325;
01-JUN-1994 (REL. 2
01-OCT-1996 (REL. 3
15-JUL-1998 (REL. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SARAFI M.N., GARCIA-ZEPEDA E.A
LUSIER A.D.;
J. EXP. MED. 185:99-109(1997).
-!- FUNCTION: CHEMOTACTIC FACT
                    JOSE P.J., GRIFFITHS-JOHNSON D.A., MOQBEL R., TOTTY N.F., TRUONG O., J. EXP. MED. 179:881-887(1994).
                                                                                   STRAIN-HARTLEY; T:
MEDLINE; 94157409
                                                                                                                                                                           BIOCHEM.
                                                                                                                                                                                                                                            MEDLINE;
                                                                                                                                                                                                                                                                                                       ROTHENBERG M.E., LUSTER A.D., LILLY J. EXP. MED. 181:1211-1216(1995).
                                                                                                                                                                                                                                                                                                                                                      MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAVIA PORCELLUS (GUINEA PIG).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EOTAXIN PRECURSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EOTA_CAVPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <del>:</del> :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              - -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JIA G.-Q., GONZALO J.A., LLOYD C., WERSHIL B.K., GUTIEBREZ-RAMOS J.C., J. EXP. MED. 184:1939-1951(1996).
                                                                                                                              SEQUENCE OF 24-96
                                                                                                                                                                                                  WELLS
                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                      TISSUE-LUNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 72 EICADPKEKWV 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC INVILAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A PIVOTAL ROLE DURING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION. SUBUNIT: HOMODIMER (BY SIMILARITY).

TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND THYMUS. ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES, BREAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON. INDUCTION: BY IFN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).

SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C.C.) (CHEMOKINE CC).
                                                                                                                                                                      ENCE FROM N.A.
LINE; 9509.1818.
P.J., ADCOCK I.M., GRIFFITHS-JOHNSON D.A., BERKMAN
S.T.C., WILLIAMS T.J., POWER C.A.;
HEM. BIOPHYS. RES. COMMUN. 205:788-794(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EICADPKQKWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                95173589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97149438
                                                                                                                                                                                                                                                                                                                                                                                                                                        RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  104 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GARCIA-ZEPEDA E.A.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23
4-33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                          TISSUE=LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11
    RESPONSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29, CARATED)
34, LAST SEQUENCE UPDATE)
36, LAST ANNOTATION UPDATE)
(EOSINOPHIL CHEMOTACTIC PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SMALL_CYTOKINES_CC; 1.
XIS; SIGNAL; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22
104
58
74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                88.7%;
90.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11659
                                                                                                                                                                    T.J., POWER C.A.;
S. COMMUN. 205:788-794(1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ¥,
  TO THE PRESENCE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BY SIMILARITY.

MONOCYTE CHEMOTACTIC PROTEIN
BY SIMILARITY.

BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08FA6C35 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MACLEAN J.A.,
                                          HSUAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ö.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  86;
                                        COLLINS P.D., WALSH ISUAN J.J., WILLIAMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KREMER L.,
                                                                                                                                                                                                                                                                                                                              a
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1.73e-07;
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                                                                                                                                                                                                                                                                                                                              DRAZEN
ALLERGENS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 104;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MARTINEZ
                                        D.T.,
                                                                                                                                                                                                                                                                                                                           LEDER
THIS PROTEIN
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Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                      ILT 16
ILB_CANFA
P41324;
01-FEB-1995
01-FEB-1995
01-NOV-1995
 EMBL; D1
EMBL; U1
PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C-C) (CHEMOKINE CC).

EMBL; U18941; G687556; -.

EMBL; X77603; G602552; -.

HSSP; P13500; IMCA.

PROSITE; PS00472; SMALL_CYTOKINES_CC;

EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.

-!- SUBCELLULAR LOCATION: EXTRACELLULAR.

-!- TISSUE SPECIFICITY: LUNG.

-!- PIM: O-GLYCOSYLATED (PROBABLE).

-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOK: C-C) (CHEMOKINE CC).
                                                                                        KUKIELKA G.L., SMITH W.C., LAROSA G.J., MANNING A.M.,
MENDOZA L.H., DALY T.J., HUGHES B.J., YOUKER K.A., HAWKINS H.K.,
MICHAEL L.H., ROT A., ENTMAN M.L.;
J. CLIN. INVEST. 95:89-103(1994).
-i- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
-i- FUNCTION: AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
                                                                                                                                                                                                                          MATSUMOTO Y., MOHAMED A., GOITSUKA R., TSUJIMOTO H. ISHIKAWA J., HOTTA K., SU CYTOKINE 6:455-461(1994).
                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
MEDLINE; 94010328.
ISHIKAWA J., SUZUKI S.,
GENE 131:305-306(1993).
                                                                                                                                                                                                                                                                                                                                                                              EUKARYOTA; METAZOA;
EUTHERIA; CARNIVORA.
                                                                                                                                                                                                                                                                                                                                                                                                                          01-FEB-1995 (REL. 31, CREATED)
01-FEB-1995 (REL. 31, LAST SEQU)
01-NOV-1995 (REL. 32, LAST ANNO)
INTERLEUKIN-8 PRECURSOR (IL-8).
                                                        RESPONSE TO AN INFLAMMATORY
-!- SUBUNIT: HOMODIMER.
-!- SIMILARITY: BELONGS TO THE
                                                                                                                                                                                          STRAIN-MONGREL;
                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                        TISSUE-LYMPH NODE;
MEDLINE; 95127913.
                                                                                                                                                                                                                                                                                                                                                                                                     CANIS FAMILIARIS (DOG)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL
                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INFLAMMATORY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          71 ICADPKKKWVQ
C-X-C) (CHEMOKINE CXC).
BL; D28772; G517100; -.
BL; D14285; G475152; -.
BL; U10308; G607814; -.
OSITE; PS00471; SMALL_CYTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Loca1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ICADPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity 90.9% 10; Conservative
                                                                                                                                                                            95114148
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31 56
31 72
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93 93
88 88
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                         TISSUE-JUGULAR VEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12
                                                                                                                                                                                                                                                                                                                                                                                                                                     31, CREATED)
31, LAST SEQUENCE UPDATE)
32, LAST ANNOTATION UPDATE)
 SMALL_CYTOKINES_CXC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           90.9%;
                                                                                                                                                                                                                                                                                                                                                                                          CHORDATA;
                                                                                                                                                                                                                                     A., ONODERA T., KATO H., OE
O H., HASEGAWA A., FURUSAWA
SUZUKI K., HIROTA Y.;
                                                                                                                                                                                                                                                                                                                                  HOTTA K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score
Pred.
0; M
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BY SIMILARITY.
BY SIMILARITY.
POTENTIAL.
D -> G (IN REF
                                                                                                                                                                                                                                                                                                                                                                                          VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                D -> G (IN REF.
DD28C7E5 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                          INTERCRINE
                                                                                STIMULUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            No ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          _CC; 1.
GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                 HIROTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      101
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5.42e-07;
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                                                         ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                  MIZUNO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2)
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S
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YOSHIHARA
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                                                                                                                                                                                                                                                                                                                                  SUZUKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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                                                                                                                                               Query Match
Best Local s
Matches
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Best Local
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                                                                                                                                                                                                                                                   C-X-C) (CHEMOKINE CXC).

EMBL; X78306; G463254; -.

EMBL; S74436; G786591; -.

PIR; S42496; S42496.

HSSP; P10145; 3118.

PROSITE; PS00471; SMALL_CYTOR
                                                                                                                                                                                      DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CYTOKINE;
SIGNAL
CHAIN
DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                              SEOW H.F., YOSHIMURA T., WOOD P.R., COLDITZ I.G.;
IMMUNOL. CELL BIOL. 72:398-405(1994).
-i- FUNCTION: II-8 IS A. CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
-i- SUBUNIT: HOMODIMER.
-i- SUBUNIT: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKIN)
                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE; 95121931.
LEGASTELOIS I., GREENLA
GENE 150:367-369(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IL8_SHEEP
P36925;
                   IL8_PIG STANDARD; PRT; 103 AA. P26894; P22951; 19. CREATED) 01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE) 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OVIS ARIES (SHEEP). EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JUN-1994
01-NOV-1995
INTERLEUKIN-8
I) (AMCF-I).
                                                                                                                                                                                                                                           CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-JUN-1994
                                                                                                                                                                                                                       CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE; 95137691
                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INTERLEUKIN-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         75 EVCLDPKEKWVQ 86
|:| |||:|||
1 EICADPKQKWVQ 12
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                                                                                                                         EVCLDPKEKWVQ
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                                                                                                                                              Similarity
9; Conser
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9; Conser
                                                                                                                                                                                                                                         PS00471; SMALL_CYTOKINES_CXC; 1. CHEMOTAXIS; INFLAMMATORY RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             101 AA;
                                                                                                                                                                                       101 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (REL. 29, CREATED)
(REL. 29, LAST SEQUENCE UPDATE)
(REL. 32, LAST ANNOTATION UPDATE)
                                                                                                                                               Conservative
                                                                                                                                                                                                  34
36
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36
          PRECURSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRECURSOR (IL-8).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                             GREENLAND
                                                                                                                         86
                                                                                                      12
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101
61
77
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61
77
                                                                                                                                                        86.6%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            86.6%;
                                                                                                                                                                                       11292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11280
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          (IL-8)
                                                                                                                                                                                       WW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 84;
Pred. No.
                                                                                                                                             Score 84; DB 1;
Pred. No. 5.42e-07
2; Mismatches
                                                                                                                                                                                               INTERLEUKIN-8.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INTERLEUKIN-8.
BY SIMILARITY.
BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
          (ALVEOLAR MACROPHAGE
                                                                                                                                                                                      5A574527 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7C49D62D CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            84; DB 1;
No. 5.42e-07
                                                                                                                                                                                                                                                                                                                                                                                                                                            ₽.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 101
                                                                                                                                                                                                                                                                                                                                                                                                                                            MORNEX J.F., CORDIER G.;
                                                                                                                                                                                                                                                                                                                  ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                          SIGNAL
                                                                                                                                                                Length 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 101;
                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
          CHEMOTACTIC FACTOR
                                                                                                                                              0
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RESULT
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Best Local
                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                             RESPONSE TO AN INFLAMMATORY STIMULUS.

-!- SUBUNIT: HOMODIMER.
-!- TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.
-!- INDUCTION: BY LIPOPOLYSACCHARIDE.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA C-X-C) (CHEMOKINE CXC).
EMBL; M66923; 6164521; -.
EMBL; M99367; G164521; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
MEDLINE; 94103307.
LIN G., PEARSON A.E., 9
WEISS D.J., MURTAUGH M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IL8.
SUS SCROFA (PIG).
EUKARYOTA; METAZOA
                                                                                                                                                                                     DISULFID
DISULFID
CONFLICT
CONFLICT
MILA_RAT STANDARD; PRT; 92 AA.
P50229; 01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR
SCYA3 OR MIPIA.
                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GOODMAN R.B.;
SUBMITTED (MAR-1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GOODMAN R.B., FOSTER D.C., FORSTROM J.W., MARTIN T.R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. SANJANWALA M.;
                                                                                                                                                                                                                               CHAIN
                                                                                                                                                                                                                                        SIGNAL
                                                                                                                                                                                                                                                                    PIR; A44253; A44253.
PIR; A39819; A39819.
HSSP; P10145; 3IL8.
                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN=YORKSHIRE;
MEDLINE; 91217086
                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE OF 26-45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BIOCHEMISTRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                  CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REVISION TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUBMITTED (JUL-1991)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                            PROSITE;
                                                                                                                    75 EVCLDPKEKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BIOL. CHEM. 269:77-85(1994).
                                                                    19
                                                                                                |:| |||:||||
EICADPKQKWVQ
                                                                                                                                       Similarity 75.0% 9; Conservative
                                                                                                                                                                                                                                                         0145; 3ILB.
PS00471; SMALL_CYTOKINES_CXC; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  93041741.
                                                                                                                                                                            26
34
36
33
33
87
103 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31:10483-10490(1992)
                                                                                                                    86
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103
61
77
34
87
                                                                                                                                                 86.6%;
75.0%;
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                                                                                                                                                                                                                                                 INFLAMMATORY RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SCAMURRA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL/GENBANK/DDBJ DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL/GENBANK/DDBJ
                                                                                                                                                                              ¥.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MATHEWES
                                                                                                                                                                          INTERLEUKIN-8.
BY SIMILARITY.
BY SIMILARITY.
RC -> CR (IN REF. 5).
K -> KK (IN REF. 2).
W; A012D59D CRC32;
                                                                                                                                                Score 84; DB 1;
Pred. No. 5.42e-07
                                                                                                                                       2
                                                                                                                                                                                                                                                                                                                                       INTERCRINE ALPHA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R.W.,
                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    읁
                                                                                                                                                                                                                                                                                                                                                                                       FACTOR THAT ATTRACTS NEUTROPHILS, MONOCYTES. IT IS ALSO INVOLVED IN TRACED FROM SEVERAL CELL TYPES IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ø
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DATA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OSBORN S.G.,
                                                                                                                                                                                                                                                  SIGNAL
                                                                                                                                                          Length 103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BAARSCH M.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BANKS
                                                                                                                                                                                                                                                                                                                                       FAMILY
                                                                                                                                        Indels
           (MIP-1-ALPHA)
                                                                                                                                                                                                                                                                                                                                       (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KUIJPER J.L.,
                                                                                                                                       0;
                                                                                                                                       Gaps
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RESULT
AC PRO
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Best Local S
Matches
                                                                                                                                                                                                                                                                                                                      MCPB_BOVIN STAN
P80343;
01-FEB-1995 (REL. 3
01-FEB-1995 (REL. 3
15-JUL-1998 (REL. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISULFID DISULFID CONFLICT CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAKAGAWA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;

BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948 (1995).

-I- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.

HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPHILS,

BASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LUNG TNF-ALPHA

PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND

MAY FUNCTION AS AN AUTOCRIME MEDIATOR FOR THE MACROPHAGE

PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGULATES VASCULAR

ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFLOX. THIS PROTEIN
                  MEDLINE; 95034774.

PROOST P., WUYTS A., LENAERTS J.-P., VAN DAMME J.;

BIOCHEMISTRY 33:13406-13412(1994).

-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. ALSO INDUCTHE RELEASE OF GELATINASE B. THIS PROTEIN CAN BIND HEPARIN.
                                                                                                                                                                                                                                                                                            01-FEB-1995 (REL. 31, CREATED)
01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1B (MCP-1B) (FRA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; U22414; G790633; -. EMBL; U06435; G459150; -. PROSITE; PS00472; SMALL_CI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-LONG EVANS; TISSUE-LUNG; MEDLINE; 95238980.
SHANLEY T.P., SCHMAL H., FRIEDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE; 95298037.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RATTUS NORVEGICUS (RAT)
EUKARYOTA; METAZOA; CHO
EUTHERIA; RODENTIA.
                                                                                                                                                                 TISSUE-KIDNEY;
                                                                                                                                                                                                                              EUTHERIA;
                                                                                                                                                                                                                                                         BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF 24-57.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (EDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     71
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X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BINDS HEPARIN.
INDUCTION: BY LIPOPOLYSACCHARIDE (LPS)
SIMILARITY: BELONGS TO THE INTERCRINE
C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QICADPKETWVQ 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EICADPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity 9; Conse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BIOPHYS. RES.
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                                                                                                                                                                                                                                   ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GODLESKI J.J., PAULAUSKIS
BIOPHYS. RES. COMMUN. 211:2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ., SCHMAL H., FRIEDL 154:4793-4802(1995).
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35
57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     85.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10335
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92
73
57
                                                                                                                                                                                                                                                      CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFLAMMATORY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FRIEDL H.P.,
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X
    BLOCKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MACROPHAGE INFLAMMATORY P
BY SIMILARITY.
BY SIMILARITY.
A -> T (IN REF. 2).
C -> W (IN REF. 2 AND 3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 83; DB 1; 1
Pred. No. 9.58e-07
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          F48CF89F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     211:289-295(1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               J.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                   74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JONES M.L., WARD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CRC32;
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                                                                                                                                                                                                                                                                                                 (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BETA FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                             INDUCES
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PROCESS OF CONTRACT OF STREET OF STR
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                         MEDLINE; 91207
CHANG H.C., HS
INT. IMMUNOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MCP2_HUMAN STANDARD; PRT; 99 AA.
P80075; P78388;
01-DEC-1992 (REL. 24, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID DISULFID
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -:- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).

PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.

CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING.

NON_TER 1 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHEMOATTRACTANT PROTEIN 2) (HC14). SCYAB OR SCYALO OR MCP2.
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                                                                                                                                                                                                                                                                                                                                                                               VAN DAMME J., PROOST P., LENAERTS J. EXP. MED. 176:59-65(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE-OSTEOSARCOMA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF 23-99 | MEDLINE; 91207938.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BIOCHEM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VAN COILLIE E., FROYEN F
VAN AELST I., VAN DAMME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A., AND VARIANT GLN-69
MEDLINE; 97237052.
VAN COILLIE E., FITEN P., NOMIYAMA H.,
VAN DAMME J., OPDENAKKER G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE; 92308855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 26-99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE; 97224420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FISSUE-BONE MARROW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SENOMICS 40:323-331(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HOMO SAPIENS (HUMAN)
                                                                                                                                                                                                                                                                                                                                            SUBUNIT.
                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              48 EICAEPKXXWVQ 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ب
                                     INDUCTION: BY INTERFERON GAMMA, SIMILARITY: BELONGS TO THE INTERFORM (C-C) (CHEMOKINE CC).
                                                                                               SPLEEN AND PROSTATE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EICADPKQKWVQ
x99886;
Y10802;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BIOPHYS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1
9
10
74 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HSU F., FREEMAN G.
L. 1:388-399(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-99 FROM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OPDENAKKER G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FROYEN F., NOMIYAMA H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8360 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          84.5%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FREEMAN G.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AND VARIANT GLN-69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OPDENAKKER
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1; N
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BY SIMILARITY.
66172F08 CRC32
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                                                              INTERCRINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  231:726-730(1997).
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                                                                                                                                                                                                                                                                                                                                                                                                    J.-P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GRIFFIN J.D.,
                                                         MITOGENS AI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SAKAKI Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MIURA R.,
                                                                                                                                                                                                                                                                                                                                                                                                      OPDENAKKER
                                                         AND INTERLEUKIN-1
TA FAMILY (SMALL C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'n
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REINHER2 E.L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FITEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MIURA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                    G.;
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                                                           CYTOKINE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                            EMBL; AB000221; 1
EMBL; Y13710; E3:
PROSITE; PS00472
CYTOKINE; CHEMOT;
 SIGNAL
CHAIN
DISULFID
DISULFID
                                                                                          MEDLINE: 97275308.

MELLS T.N.C., PEITSCH M.C.;

J. LEUKOC. BIOL. 61:545-550(1997).

J. LEUKOC. BIOL. 61:545-550(1997).

-i. FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LYMPHOCYTES BUT NOT MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN B CELL MIGRATION INTO B CELL FOLLICLES IN LYMPH NODES.

-i. TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN THE LUNG. A LOY LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NODI THYMUS AND APPENDIX.

-i. SIMILERITY: BELLONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOK.)

-i. SIMILERITY: BELLONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOK.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIGNAL
CHAIN
MOD_RES
DISULFID
DISULFID
VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE; E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND ACTIVATED MACROPHAGE CHEMOKINE) (CC CHEMOKINE PARC) (ALTERNATIVE ACTIVATED MACROPHAGE ASSOCIATED CC CHEMOKINE 1) (AMAC-1).
SCYA18 OR MIP4.
                                                                                                                                                                                                                                                                                                HIESHIMA K., IMAI T., BABA M., SHOUDAI K., ISHIZUKA K., NAKAGAWA T., TSURUTA J., TAKEYA M., SAKAKI Y., TAKATSUKI K., MIURA R., OPDENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA H. J., IMMUNOL. 159:1140-1149(1997).
                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A., AND TISSUE-AORTA, AND LUNG; MEDLINE; 97376836.
                                                                                                                                                                                                                                                                                                                                                                                                                                      EUKARYOTA;
EUTHERIA; F
                                                                                                                                                                                                                                                                                                                                                                                                                                           SCYAls ON FLAT.
HOMO SAPIENS (HUMAN).
CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MIP4_HUMAN
P55774;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MIM;
                                                                                                                                                                                                                             DISCUSSION OF SEQUENCE.
                                                                                                                                                                                                                                                     SUBMITTED (AUG-1997)
                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                          PATENT NUMBER US5504003.
                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HSSP; P13500; 1MCA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
les 8; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  73 EVCADPKERWVR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 EICADPKQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       602283;
                                                       3710; E321838;
PS00472; SMAL
                                                                                         (CHEMOKINE CC)
                                                                                                                                                                                                                                                                                                                                                                                                                                      THE PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PS00472;
                                             CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99
                                                                                                                                                                                                                                                    MUELLER C.,
AUG-1997) TO
                                                                                                                                                                                                                                                                                                                                                                                                     M N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
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                                          SMALL_CYTOKINES_CC; XIS; INFLAMMATORY RE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SMALL_CYTOKINES_CC; 1.
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                                                                                                                                                                                                                                                    POLITZ O., HAKIY N., EMBL/GENBANK/DDBJ DA
                                                                                                                                                                                                                                                                                                                                                                   PARTIAL SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred.
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MACROPHAGE INFLAMMATORY
BY SIMILARITY.
BY SIMILARITY.
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MONOCYTE CHEMOTACTIC PROTEIN
PYRROLIDONE CARBOXYLIC ACID.
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BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERTEBRATA; TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5DDD5C20 CRC32;
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                                            RESPONSE;
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                                                                                           BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                    DATA BANKS
                                            SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 99;
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                      PROTEIN
                                                                                                                                                                                                                                                              C.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                 MAMMALIA;
                                                                                                                                                                                                                                                              GOERDT
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SOLUTION OF STREET OF STRE
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Best Local S
Matches
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Best Local Similarity
Matches 9; Consei
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P79255;
01-NOV-1997 (REL. 35, CRE
01-NOV-1997 (REL. 35, LAS
01-NOV-1997 (REL. 35, LAS
INTERLEUKIN-8 PRECURSOR (
                                                                                                                                                                                                                                ILB_RABIT STANDARD; PKT; 101 Gr.
1919874;
01-FEB-1991 (REL. 17, CREATED)
01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
1NTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATPROTEIN-1) (NAP-1) (PERMEABILITY FACTOR 1) (R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MICROB. PATHOG. 20:203-212(1996).

-I- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
-I- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
-I- SUNCTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
-I- SUBUNIT: HOMODIMER (BY SIMILARITY).
-I- SIMILARITY: BELIONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).
                                     STRAIN-NEW ZEALAND WHITE; TISSUE MEDLINE; 91225489.
YOSHIMURA T., YUHKI N.;
J. IMMUNOL. 146:3483-3488(1991).
                                                                                                                                                                    ORYCTOLAGUS CUNICULUS (RABBIT EUKARYOTA; METAZOA; CHORDATA; EUTHERIA; LAGOMORPHA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHC
EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
SEQUENCE OF 23-53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MORSEY M.A., POPOWYCH Y.,
CAMPOS M., BABIUK L.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. MEDLINE; 96304552.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE;
                                                                                                                            SEQUENCE FROM N.A.
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8; Conser
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PS00471; SMALL C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             101
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larity 66.7%;
Conservative
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A
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XIS; INFLAMMATORY RESPONSE;
22 BY SIMILARITY.
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35, LAST SEQUENCE UI
35, LAST ANNOTATION
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101
61
77
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                                                                                                                                                                                                            (RABBIT)
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                                                                                                        TISSUE-SPLEEN
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Pred.
3; M
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2; M
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BY SIMILARITY.
, 0E39C526 CRC32;
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                                                                                                                                                                                     VERTEBRATA;
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1. No. 2.96e-06;
1. No. --+ches 1;
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No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 1; Lens
. 2.96e-06;
-hes 1;
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                                                                                                                                                                                          TETRAPODA;
                                                                                                                                                                                                                                                                          ATTRACTANT/ACTIVATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
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RESULTATION OF THE PROPERTY OF
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Best Local S
Matches
                                              EMBL; J04467; G387169; -. EMBL; M19681, G387169; -. EMBL; M19681, G387168; -. PIR; A30209; A30209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIGNAL
CHAIN
DISULFID
DISULFID
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MCP1_MOUSE STANDARD; PRT; 148 AA. P10148; 01-MAR-1989 (REL. 10, CREATED) 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE) 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE) MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-NEW ZEALAND WHITE; TISSUE-PERITON MEDLINE; 91058818.
BEAUBIEN B.C., COLLINS P.D., JOSE P.J., WATERFIELD M.D., WILLIAMS T.J.;
BIOCHEM. J. 271:797-801(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GROWTH FACTOR-INDUCIBLE PROTEIN SCYAS OR MCP1 OR JE. MUS AUGUMS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C-X-C) (CHEMOKINE CXC).
EMBL; M57439; G165553; -.
PIR; S13052; S13052.
                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE OF 26-42.
MEDLINE; 91293127.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE; 8823.
ROLLINS B.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. MEDLINE; 88234501.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KAWAHARA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EUTHERIA;
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                                                                                                                                                                                                                                                                                                                                                       DAMME J., DECOCK B., BERTINI F
W., OPDENAKKER G., MANTOVANI A
J. BIOCHEM. 199:223-229(1991)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS, BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN RESPONSE TO AN INFLAMMATORY STIMULUS.
SUBUNIT: HOMODIMER.
SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                     SUBUNIT: MONOMER OR HOMODIMER; INDUCTION: BY PLATELET-DERIVED SIMILARITY: BELONGS TO THE INTE
                                                                                                                                                                                                                                                                                                                              FUNCTION: CHEMOTACTIC FACTOR THAT
                                                                                                                                                                                                                                                                                                     NEUTROPHILS.
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S16226; S16226.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EICADPKQKWVQ
      p13500;
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TE; PS00471; SMALL_CYTOKINES_CXC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        89093129.
R.S., DEU
CHEM. 264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
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larity 75.0%;
Conservative
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CAD. SCI.
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34
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEUEL T.F.;
264:679-682(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AA;
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101
61
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11402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFLAMMATORY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .S.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ₩;
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BY SIMILARITY.
BY SIMILARITY.
K -> I (IN REF. 2)
K -> CB32CC30 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 81; DB 1; L
Pred. No. 2.96e-06;
2; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STILES C.D.;
. 85:3738-3742(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                      A .
                                                                                                                                                                                                                                       IN EQUILIBRIUM (BY GROWTH FACTOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                    CONINGS
                                                                                                                                                                                                                                                                                                                              ATTRACTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOTTY N.F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                 R., LENAERTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 101;
                                                                                                                                                                                                        FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                           MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (PLATELET-DERIVED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MAMMALIA;
                                                                                                                                                                                                                                                                SIMILARITY).
                                                                                                                                                                                                                                                                                                                              BUT
                                                                                                                                                                                                                                                                                                                                                                                                                 J.-P.,
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MILA,MOUSE STANDARD;

MILA,MOUSE STANDARD;

P10855; p14096;

01-JUL-1989 (REL. 11, CREATED)

01-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)

01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)

MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA)

MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PROTEIN) (L2G25B).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MGD; MGI:98259; SCYA2.
PROSITE; PS00472; SMALL
CYTOKINE; CHEMOTAXIS; SSIGNAL 24 148
MOD_RES 24 24
SEQUENCE OF 24-42.
SEQUENCE OF 24-42.
MEDLINE; 88154745.
WOLPE S.D., DAVATELIS G., SHERRY B., BEUTLINGVEN H.T., MOLDAWER L.L., NATHAN C.F., L.
J. EXP. MED. 167:570-581(1988).
J. EXP. MED. 167:570-581(1988).
                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. MEDLINE; 89093958. BROWN K.D., ZURAWSK J. IMMUNOL. 142:679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DISULFID
DISULFID
CARBOHYD
SEQUENCE
                                                                                             WIDMER U., CERAMI A.;
                                                                                                                                                         SEQUENCE FROM N.A.
MEDLINE; 89184547.
KWON B.S., WEISSMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                   (SIS-ALPHA) (HEPARIN-BINDING SCYRA) OR MIP1A. MUS MUSCUUS (MOUSE). EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                 SEQUENCE FROM N.A. MEDLINE; 91237116.
                                                                                                                                                                                                    MEDLINE; 91016858.
GROVE M., LOWE S.,
NUCLEIC ACIDS RES.
                                                                                                                                                                                                                                                                                                                                 DAVATELIS G., GALLEGOS C., G
                                                                                                                                                                                                                                                                                                                                                                          DAVATELIS G., TEKAMP-OLSON P., WOLPE S. GALLEGOS C., COIT D., MERRYWEATHER J., J. EXP. MED. 167:1939-1944(1988).
                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
STRAIN-DBA/2J;
                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. MEDLINE; 88258380.
                                                                                                                                                                                                                                                                                                                                                                                                                                         EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                       REVISIONS.
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                                                                                  IMMUNOL.
                                                                                                                                                                                                                                                                                                                       EXP. MED.
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                                                                                                                                                 NATL.
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                                                                                                        YANG Z.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              148 AA;
                                                                                                                                                                                                                                                                  ZURAWSKI S.M., MOSMANN 142:679-687(1989).
                                                                                   146:4031-4040(1991).
                                                                                                                                                  ACAD.
                                                                                                                                                                                                                                                                                                                      TEKAMP-OLSON P., WOLPE S COIT D., MERRYWEATHER J., 170:2189-2189(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                  SCI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SMALL_CYTOKINES_CC; 1.

XIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.

23 BY SIMILARITY.

148 MONOCYTE CHEMOTACTIC PROTEIN 1.

24 PYRROLIDONE CARBOXYLIC ACID (BY

SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12
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                                                                                                                                                                                                    GRAHAM G., PRAGNELL 18:5561-5561(1990).
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75
126
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75.0%;
                                                                                                        VAN
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                                                                                                        DEVENTER
                            SHERRY B., BEUTLER B., NATHAN C.F., LOWRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ₹;
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Pred.
1; M
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BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERTEBRATA;
                                                                                                                                                86:1963-1967(1989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B7572BBC CRC32;
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No. 5.18e-06;
                                                                                                                                                                                                                                                                            T.R.,
                                                                                                                                                                                                                                                                                                                                  S.D., HER
                                                                                                        MANOGUE K.R.,
                                                                                                                                                                                                              Ε.,
                                                                                                                                                                                                                                                                                                                                                                                     .D., HERMSEN CERAMI A.;
                                                                                                                                                                                                                                                                              ZURAWSKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                   TETRAPODA; MAMMALIA;
          PYROGENIC AND CHEMOKINETIC
                                                                                                                                                                                                               PLUMB
                                                                                                                                                                                                                                                                                                                                           HERMSEN
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                            S.F., CERAMI
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                                                                                                        SHERRY B.,
                               CERAMI A.;
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Best Local
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                                                         C-C) (CHEMOKINE CC) ...
EMBL; X17053; G55531; -..
EMBL; M57441; G205334; -..
PIR; JN0128; JN0128
PIR; S07723; S07723.
HSSP; P13500; IMCA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; W23447; G533241; --
EMBL; W23447; G533241; --
EMBL; X53372; G297531; --
EMBL; X53372; G297531; --
EMBL; X53372; G297551; --
EMBL; X5337361; G196955; --
EMBL; M3061; G196955; --
PIR; A27596; A27596
PIR; A27596; A27596
PIR; A32592; A30552.
PIR; A32393; A32393
PIR; S34533; S04533
PIR; S34533; S1685
PIR; S11685
                     PROSITE; P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
DISULFID
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P14844;
01-APR-1990 (REL. 14, CREATED)
01-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (IMMEDIATE-EARLY SERUM-RESPONSIVE JE PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CONFLICT
SEQUENCE
                                                                                                                                                                                                                                            MEDLINE; 91128376.
YOSHIMURA T., TAKEYA M., T
BIOCHEM. BIOPHYS. RES. COM
-!- FUNCTION: CHEMOTACTIC
                                                                                                                                                                                    <del>-</del> -
                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N
STRAIN-WAG/RIJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RATTUS NORVEGICUS (RAT)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SCYA2 OR JE OR MCP1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MGD; MGI:98260; SCYA3
PROSITE; PS00472; SMA:
CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                            TIMMERS
                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MCP1_RAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CHAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 EICADPKQKWVQ
                                                                                                                                                                                         SIMILARITY: BELONGS
                                                                                                                                                                                                       NEUTROPHILS.
SUBUNIT: MONOMER OR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE SPECIFICITY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROPERTIES. HAS A POTENT CHEMOTACTIC ACTIVITY FOR EOSINOPHILS. BINDING TO A HIGH-AFFINITY RECEPTOR ACTIVATES CALCIUM RELEASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NEUTROPHILS
                                                                                                                                                                                                                                                                                                                                                                         H.T.H.M., P
ACIDS RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
8; Conse
PS00472; SMALL_CYTOKINES_CC; 1.
; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE;
1 23 BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                               90174947.
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larity 66.7%;
Conservative
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J; TISSUE-KIDNEY;
                                                                                                                                                                                                                                         TAKEYA M., TAKAHASHI K.;
HYS. RES. COMMUN. 174:504-509(1991).
CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                            PRONK G.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12
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                                                                                                                                                                                                                                                                                                                                                                         PRONK G.J., BOS J.L., 18:23-34(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10345
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57
52
52
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                                                                                                                                                                                         ö
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EXPRESSED IN LUNG, TO THE INTERCRINE
                                                                                                                                                                                                            HOMODIMER;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                MODIMER; IN EQUILIBRIUM (BY SIMILARITY).
THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BY SIMILARITY.
BY SIMILARITY.
F -> L (IN REF.
V -> A (IN REF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 76;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; DB 1; L:
4.73e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          148
                                                                                                                                                                                                                                                                                                                                                                                            VAN DER EB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
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BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                          А.J.;
                       GLYCOPROTEIN
                                                                                                                                                                                                                                                BUT
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THE CONTRACT REPRESENTATION OF THE CONTRACT CONT
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                                                                                                                            -!- FUNCTION: STIMULATES THE PROLIFERATION OF BONE MARROW-DERIVED B
C PROGENITOR CELLS IN THE PRESENCE OF IL-7 AS WELL AS GROWTH OF THE
C STROMAL CELL-DEPENDENT B-CELL CLONE DM34 CELLS.
C -!- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE
C PROBABLY GENERATED BY ALTERNATIVE SPLICING.
C -!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C C-X-C) (CHEMOKINE CXC).
C C-X-C) (CHEMOKINE CXC).
R EMBL; D12072; G468457; -.
R EMBL; D12030; G393180; -.
R EMBL; D12030; G393180; -.
R EMBL; D1304175; -.
R EMBL; D43804; G1304174; -.
R EMBL; D43805; G1304175; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 9; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P40224;
01-FEB-1995 (REL. 31, CREATED)
01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION (SDF-1) (PRE-B CELL GROWTH STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH STIMULATING FACTOR) (PBSF) (12-O-TETRADECANOYLPHORBOL 13-ACETATE THORSESSED PROTEIN 1) (TPAR1) (THYMIC LYMPHOMA CELL STIMULATING FACTOR)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. MEDLINE; 95073497.
JIANG W., ZHOU P., 1
WEINSTEIN I.B.;
                     PROSITE; |
CYTOKINE;
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
DISULFID
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE;
NAGASAWA
                                                                                       PIR;
MGD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    NOMURA M., NAKATA Y., UZAWA A., NOSE M., AKASHI M., SUZUKI G.; SUBMITTED (DEC-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- FUNCTION: CHEMOATTRACTANT ACTIVE ON T-LYMPHOCYTES, MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE; 93342488.
TASHIRO K., TADA H., HEILKER R., SCIENCE 261:600-603(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. MEDLINE; 93342488.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SDF1_MOUSE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-AKR/J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EXP. CELL RES.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                     NOT NEUTROPHILS.
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                                     MGI:103556; SDF1.
ITE; PS00471; SMALL_CYTOKINES_CXC; FALSE.
KINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EICADPNKEWVQ 84
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; 94181581.
A T., KIKUTANI 1
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75
126
16460 .
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75.0%;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MONOCYTE CHEMOTACTIC PROTEIN 1.
PYRROLLDONE CARBOXYLIC ACID (BY
SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB97F97C CRC32;
STROMAL CELL-DERIVED FACTOR
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                                                                                                                                                                                                                                                                                             INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
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4.73e-05;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TETRAPODA;
                                            ALTERNATIVE SPLICING
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Best Local
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Best Local
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DISULFID
VARSPLIC
SEQUENCE
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                                                                                                                                                                   DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE; 98046030.
CRUMP M.P., GONG J.H., LOETSCHER P., RAJARATHNAM K., AMARA A.,
ARENZANA-SEISDEDOS F., VIRELIZIER J.L., BAGGIOLINI M., SYKES I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE; 96039262.
SHIROZU M., NAKANO T., INAY SHINOHARA T., HONJO T.; GENOMICS 28:495-500(1995).
                                                                                                                                                                                                                                                                                                                                                      EMBL; U16752; G571508; -. EMBL; L36033; G1220366; -. PDB; 1SDF; 28-JAN-98. PDB; 2SDF; 17-JUN-98.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBO J. 16:6996-7007(1997).

-!- FUNCTION: CHEMOATTRACTANT ACTIVE ON T-LYMPHOCYTES, MONOCYTES, INCT NEUTROPHILS.
-!- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE PROBABLY GENERATED BY ALTERNATIVE SPLICING.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTO)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. MEDLINE; 96039262.
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EUKARYOTA; METAZOA;
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLARK-LEWIS
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                                                                                                                                                                                                            DISULFID
                                                                                                                                                                                                                                    CHAIN
                                                                                                                                                                                                                                                                                      PRÓSITE; PS00471; SMALL_CYTOKINES_CXC; FALSE_NEG.
CYTOKINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE
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                                                                                                                                                                                                                                                     SIGNAL
                                                                                                                                                                                                                                                                      3D-STRUCTURE.
                                      69 OVCIDPKLKWIO
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  EICADPKOKWVQ 12
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7; Conser
                                                                             n 77.3%;
Similarity 58.3%;
7; Conservative
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larity 58.3%;
Conservative
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32
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                                                                                                                                                                   AA;
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                                                                                                                                                                   10666 MW;
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                                                                               Score 75; DB 1; L
Pred. No. 8.17e-05;
3; Mismatches 2
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Pred.
3; M
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BY SIMILARITY.
K -> KRLKM (IN FORM F
; 222C4E52 CRC32;
                                                                                                                                                                                                                             STROMAL CELL-DERIVED
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No. 8.17e-05;
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                                                                                                                                                                   CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DATA
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RESULT

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                                                                 Query Match
Best Local S
Matches
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DISULFID
CARBOHYD
                                                                          CONFLICT
                                                                                                                                                                                                                                                                                                           - :
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01-OCT-1993 (REL. 27, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3)
CHEMOATTRACTANT PROTEIN 3) (INTERCRINE/CHEMOKINE
                                                                                                                                                                                                       EMBL; X70058; 530592.
PIR; S30592; S30592.
                                                                                                                                                                                                                    EMBL; 212297; G57938; -.
EMBL; L04694; G192926; -.
EMBL; S71251; G547089; -.
EMBL; X70058; G437873; -.
                                                                                                                                                                                                                                                            -!- FUNCTION: CHEMOTACTIC FACTOR THAT EOSINOPHILS, BUT NOT NEUTROPHILS. ACTIVITY (BY SIMILARITY).
-!- SUBUNIT: MONOMER (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INTERCR C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                   JARMIN D.I., KULMBURG P.A., HUBER N. PRIESCHL-STRASSMAYR E.E., BAUMRUKER J. IMMUNOL. 153:5720-5729(1994).
                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.

MEDILINE; 93204948.

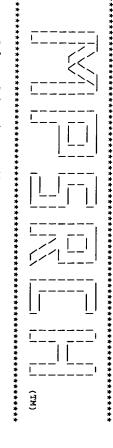
HEINRICH J.N., RYSECK R.P., MACDONALD-BRAVO H., BRAVO R.;

MOL. CELL. BIOL. 13:2020-2030(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
TISSUB-MAST CELLS;
MEDLINE; 93094785.
KULMBURG P.A., HUBER N.E., SCHEER B.J.,
J. EXP. MED. 176:1773-1778(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MCP3_MOUSE
Q03366;
                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BIOCHEM. BIOPHYS. RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SCYA7 OR MCP3 OR FIC.
                                                                                                                                                                                                                                                                                                                                                    MEDLINE;
                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EUTHERIA;
                                                                                                                                 INFLAMMATORY RESPONSE.
SIGNAL 1 23
CHAIN 24 97
MOD_RES 24 24
                                                                                                                                                                                   PROSITE;
                                                                                                                                                                                           MGD; MGI:9951
71 EVCAEAHQKWVE
|:||:: |||:
                                   Similarity
                                                                                                                                                                        PS00472; SMALL_CYTOKINES_CC; 1.
; CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN;
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Pred.
                                                                                                    BY SIMILARITY.
BY SIMILARITY.
                                                                                                                        PYRROLIDONE CARBOXYLIC SIMILARITY).
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MONOCYTE CHEMOTACTIC
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                                                                                              POTENTIAL
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                                   DB 1; I
8.17e-05;
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Section Section 18

Search completed: Thu Apr 1 07:22:34 1999 Job time : 32 secs.

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MPsrch\_pp protein - protein database search, using Smith-Waterman algorithm
Run on:
Thu Apr 1 07:22:51 1990. Waspar time 5 30 Seconds

Run on: Thu Apr 1 07:22:51 1999; MasPar time 5.30 Seconds
Tabular output not generated. 125.027 Million cell updates/sec

Title: >US-08-927-939-1
Description: (1-12) from US08927939.pep
Perfect Score: 97
Sequence: 1 EICADPKQKWVQ 12
Scoring table: PAM 150

Scoring table: PAM 150
Gap 15
Searched: 180763 segs, 55169189 residues

Post-processing: Minimum Match 0% Listing first 100 summaries

Database: sptrembl8

sptremb18
1:sp\_archea 2:sp\_bacteria 3:sp\_fungi 4:sp\_human
5:sp\_invertebrate 6:sp\_mammal 7:sp\_mhc 8:sp\_organelle
9:sp\_phage 10:sp\_plant 11:sp\_rodent 12:sp\_unclassified
13:sp\_vertebrate 14:sp\_virus

Statistics: Mean 25.510; Variance 35.092; scale 0.727

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIE

		æ			SOMMAKIES		
Result		Query					
No.	Score	Match	Length	B	Ħ	Description	Pred. No.
L	81	83.5	395	11	035933	FRACTALKINE.	4.53e-05
N	81	83.5	395	11	035188	NEUROTACTIN.	4.53e-05
ω	77	79.4	119	4	000175	MPIF-2.	3.48e-04
4	76	78.4		11	089093	CC CHEMOKINE ST38 PREC	5.76e-04
υī	76	78.4	134	4	000585	NE EXC	5.76e-04
თ	75	77.3	92	11	088430	CC CHEMOKINE ABCD-1.	9.50e-04
7	73	75.3		13	057411	LYMPHOTACTIN PRECURSOR	2.56e-03
œ	72	74.2	80	4	Q14745	LD78 ALPHA BETA PRECUR	4.19e-03
9	72	74.2	95	4	Q99664	CHEMOKINE EXODUS.	4.19e-03
10	72	74.2		11	P97884	CC CHEMOKINE EXODUS.	4.19e-03
11	70	72.2		4	015467	IL-10-INDUCIBLE CHEMOK	1.11e-02
12	69	71.1	101	13	093238	CC CHEMOKINE-1.	1.79e-02
13	68	70.1	91	4	043646	RANTES PRECURSOR.	2.89e-02
14	68	70.1	97	σ	062812	INTERLEUKIN-8 (FRAGMEN	2.89e-02
15	67	69.1	95	14	Q98158	ORF K6.	4.65e-02
16	67	69.1	109	11	055038	B LYMPHOCYTE CHEMOATTR	4.65e-02
17	67	69.1	397	4	P78423	CX3C CHEMOKINE PRECURS	4.65e-02
18	66	68.0	93	4	000626	MACROPHAGE-DERIVED CHE	7.45e-02
19	66	68.0	133	11	009006	BETA CHEMOKINE EXODUS-	7.45e-02
20	5	68.0	133	11	009002	SMALL INDUCIBLE CYTOKI	7.45e-02

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RESULT 1
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AC 035933;
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DT 01-JAN-
DT 01-JAN-
DT 01-JAN-
DT 01-WOV-
DE FRACTAL
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OC EUKARKY
OC SCIUROC
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                                                                                          Query Match
Best Local
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Best Local Similarity 81.8%;
Matches 9; Conservative
                                                                            Matches
                                                                                                                                                    NATURE 387:611-617(1997).
EMBL; AF010588; G2317698; -
MGD; MGI:1097133; SCYD1.
PFAM; PF00048; 118; 1.
SEQUENCE 395 AA; 42098 M
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01-JAN-1998
01-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FRACTALKINE.
FRACTALKINE.
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
EUKARYOTA; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.

MEDLINE; 97220499.

PAN Y., CLARE L., HONG Z., DOLICH S., D
GOSSELIN M., MA J., DUSSAULT B., WOOLF
GUTIERREZ-RAMOS J.C., GEARING D.;
"Neurotactin, a membrane-anchored chemo
inflammation.";
                                                                                                                                                                                                                                                                                                                                                                                             SCYD1.
MUS MUSCULUS (MOUSE).
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ROSSI D., HARDIMAN G., COPELAND N., ZLOTNIK A., BAZAN J.F.; SUBMITTED (MAR-1997) TO EMBL/GENBANK EMBL; U92565; G2459677; -PFAM; PF00048; 118; 1.
SEQUENCE 395 AA; 42040 MW; 3997F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
STRAIN-BALB/C; TISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NEUROTACTIN
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  ICADPKQKWVQ
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(TREMBLREL. 08,
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larity 81.8%;
Conservative
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202
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O82670
P91199
Q65162
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Pred. No. 4.53e-05;
2; Mismatches 0
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Pred. No. 4.53e-05;
2; Mismatches 0
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ENVELOPE GLYCOPROTEIN
COSMID ZCB.
BETA-GALACTOSIDASE (EC
SIMILARITY TO C2 DOMAI
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WARDELLI B., PIPPALLA V., GE
GENTZ R., GAROTTA G.;
J. EXP. MGD. 0:0-0(0).
EMBL; U85768; G1916252; -.
PFAM; PF00048; 118; 1.
JLT 5
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01-JUL-1997
01-JUL-1997
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EUKARYOTA; METAZOA; CHORDATA;
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA;
RODENTIA; SCIUROGNATHI; MURID!
                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUBMITTED (JUL-1998) TO EMBL/GENBANK/DDBJ DATA BANKS EMBL; AF053313; G3551819; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. VILLARES R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              UTANS-SCHNEITZ U.,
LESSLAUER W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIGNAL.
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J. NEUROIMMUNOL. 0:0-0(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "A novel rat CC chemokine, identified by targed in brain inflammation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             72 QFCGDPKQEWVQ 83
                                                                                                                                                                                                                                                               74 VCADPKQNWV
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8; Conser
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(TREMBLREL.)
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28
* AA;
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llarity 80.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
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97
10826
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13119 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RDATA; VERTEBRATA; MURIDAE;
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08, LAST SEQUENCE UPDATE)
08, LAST ANNOTATION UPDATE)
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08,
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GENTZ S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 77;
Pred. No. 3
3; Mismat
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                     Score 76; DB 11;
Pred. No. 5.76e-04;
2; Mismatches C
                                                                                                                                                                                                                                                                                                                                                                                                                                POTENTIAL.
CC CHEMOKINE ST38
053405BD CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KLINKERT W.E.F., DA SILVA J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDF526F0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 4; L
3.48e-04;
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MUS.
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PARMELEE D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EUTHERIA;
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OS8430;

O1-NOV-1998 (TREMBLREL 0:

O1-NOV-1998 (TREMBLREL 0:

O1-NOV-1998 (TREMBLREL 0:

O1-NOV-1998 (TREMBLREL 0:

CC CHEMOKINE ABCD-1.

MUS MUSCULUS (MOUSE).
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NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA

NISHIMURA M., KAKIZAKI M., NOMIYAMA H., YOSHIE O.;

SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.

EMBL; 08320; G2196920; -.

EMBL; AP001979; G25624925; -.

EMBL; AP002409; D1022673; -.

EFEAM; PF00048; 118; 1.
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                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                               "Activated murine B lymphocytes and C Chemokine which acts selectively J. EXP. MED. 188:451-463 (1998).
EMBL; AF052505; G3378116; -.
                                                                                                                                                                                                                                                                                                                                                                                                                  SHIMIZU
                                                                                                                                                                                                                                                                                                                                                                                                                                                 SCHANIEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CC CHEMOKINE ABCD-1.
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAROA; CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HEDRICK J.A., ZLOTNIK A.; SUBMITTED (MAY-1997) TO E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. HEDRICK J.A., ZLOI
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"Identification and characterization
containing six conserved cysteines.";
J. IMMUNOL. 159:1589-1593(1997).
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HROMAS R.A., GRAY P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-LIVER;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RODENTIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EQUENCE FROM N.A.
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                                                       74 DICADPROVWV 84
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EICADPKQKWVQ
:||||:| ||
                                                                                                              Similarity 72.7% 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                         T., SEIDL T., ANDERSSON J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97400322
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                                                                                                                                                                                                                                   92 AA;
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11
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                                                                                                                                                                                                                                   10302 MW;
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75.0%;
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14646 MW;
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FO EMBL/GENBANK/DDBJ
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pred. No. 5.76e-04;
2; Mismatches 1
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MUS.
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014745
PRELIMINARY; PRT; 80 AA.
014745;
01-NOV-1996 (TREMBLREL 01, CREATED)
01-NOV-1996 (TREMBLREL 01, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL 08, LAST ANNOTATION UPDATE)
1.D78 ALPHA BETA PRECURSOR (FRAGMENT).
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA;
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GALLUS (CHICKEN).
EUKARYOTA; METAZOA; CHORDATA;
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01-JUN-1998 (TREMBLREL.
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HOMO SAPIENS (HUMAN)
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ISHIZUKA K.,
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Pred. No. ,
3; Mismat
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NOMIYAMA H., ]
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P97884;
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01-MAY-1997 (TREMBLREL. 0.
01-NOV-1998 (TREMBLREL. 0.
CC CHEMOKINE EXODUS.
RATTUS NORVEGICUS (RAT).
EUKARYOTA; METAZOA; CHORD
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EMBL; AF053312; G3551817; ---
PFAM; PF00048; i18; 1.
                                                                                                                      015467 PRELIMINARY;
015467; PREMBLREL 05,
01-JAN-1998 (TREMBLREL 05,
01-JAN-1998 (TREMBLREL 08,
01-NOV-1998 (TREMBLREL 08,
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BLOOD 89:3315-3322(1997).
EMBL; U64197; G1778717; -
PROSITE; PS00472; SMALL_CYTOKINES_CC;
PFAM; PF00048; i18; 1.
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HROMAS R., GRAY P.W.,
BELL G.I., TAKEDA J.,
                                                              IL-10-INDUCIBLE CHEMOKINE. ILINCK OR SCYA16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
STRAIN-FISHER 344;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
      EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN-FISHER 344; TISSUE-BRAIN; UTANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUBMITTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KELNER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KLEMSZ M.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LESSLAUER W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SCIUROGNATHI; MURIDAE; MURINAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE-PANCREAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      72 VCANPKQTWV 81
                                                                                                                                                                                                                                                                                                                                                                                                                                             73 VCADPKQIWV 82
                                                                                                                                                                                                                                                                                                                                                                                      N
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                                    SAPIENS
                                                                                                                                                                                                                                                                                                                                                                                  ICADPKQKWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ICADPKQKWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      G.S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
8; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5., MACIEJEWŚKI-LENOIR D., LEE E.
(FEB-1997) TO EMBL/GENBANK/DDBJ
   METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            96 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (TREMBLREL. 03, (TREMBLREL. 03, TREMBLREL. 08,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        74.2%;
llarity 80.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  74.2%;
larity 70.0%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10875 MW;
   CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
E; MURINAE; RATTUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHANTRY
ARONICA
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brain inflammation.";
                                                                                                                      CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pred. No. 4.19e-03
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 72; DB 11;
Pred. No. 4.19e-03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 s.,
VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3FC09DD8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COOPER
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A BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DA SILVA J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 95;
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BROXMEYER H.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
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Best Local
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093238 PRELIMINARY;
093238;
01-NOV-1998 (TREMBLREL. 0
01-NOV-1998 (TREMBLREL. 0
01-NOV-1998 (TREMBLREL. 0
                                                                                                                                                                                                      CC CHEMOKINE-1.

CYPRINUS CARPIO (COMMON CARP).

BUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTER
TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINOIDEA;
CYPRINIDAE; CYPRININAE; CYPRINUS.
                                                                                                                       SUBMITTED (JAN-1998) TO EMBL/GENBANK/DDBJ DATA EMBL; AB010469; D1032417; -. SEQUENCE 101 AA; 11266 MW; 9CFBD540 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YOSHIE O., NOMIYAMA H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HEDRICK J.A., HELMS A., SUBMITTED (NOV-1997) TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATARRHINI; HOMINIDAE; HOMO
[1]
                                                                                                                                                                           FUJIKI
                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 monocyte chemoattractant human
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                                                                                                                                                                                                                                                                                                                                                                                                                                           PFAM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUBMITTED (AUG-1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NOMIYAMA H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
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                                                                                                                                                              CDNA cloning of a carp
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                                                                                                                                                                                                                                                                                                                                                           74 EVCTNPNDDWVQ 85
                                                            72 EFCSDPKLRWV
                                                                                          Local Similarity
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L; U91746; G2581781; -.
L; ABD07454; D1024963; -.
L; AF088219; G3719355; -.
L; AF055467; G3395776; -.
                                        |:|:||| :||
                                                                                                                                                                                                                                                                                                                                       EICADPKQKWVQ
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                                                                                                                                                                          NAKAO
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                                                                                                                                                                                                                                                                                                                                                                                                                        120 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZHANG S.,
 PRELIMINARY;
                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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50.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                       13600 MW;
                                                                                                                                                                          SHIN D., YANO T.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of 181 kb containing five CC of 181 kb containing five CC of EMBL/GENBANK/DDBJ DATA BANKS
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                                                                                                                                                              CC chemokine homologous to mammalian
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EMBL/GENBANK/DDBJ DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FUKUDA S.,
                                                                                                                                                                                                                                                                                                                                                                             Score 70;
Pred. No.
5; Mismat
                                                                                                                                                                                                                                                       CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                          Score 69; DB 13;
Pred. No. 1.79e-02;
 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              H.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                        A079DF66 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                of LMC, a nov
CC chemokine,
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                                                                                Mismatches
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                                                                                                                                                                                                                                                                                                 101
91
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ne, with myelosuppres
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                                                                                                   Length 101;
                                                                                                                                            BANKS
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J.
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RESULT 14

ID 062812;
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D1 01-AUG-1998 (
D1 01-BUG-1998 (
D2 01-BUG-1998 (
D3 EQUUS CABALLU
OC EUKARYOTA; ME
OC PERISSODACTYL
RN [1]
SEQUENCE FROM
RC TISSUE-BRONCH
RA FRANCHINI M.;
RL SUBMITTED (AP
DR EMBL; AF06237
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SO SEQUENCE 97
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Best Local
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Best Local :
                                                                                                                                                                           Matches
                                   ULT 15
Q98158 PRELIMINARY;
Q98158; 012569;
01-FEB-1997 (TREMBLREL. 0:
01-JUL-1997 (TREMBLREL. 0:
01-NOV-1998 (TREMBLREL. 0:
ORF K6.
KAPOSI'S SARCOMA-ASSOCIATED
VIRUSES; DSDNA VIRUSES, NO R
                                                                                                                                                                                                                                                                                                                    IL-8.
EQUUS CABALLUS (HORSE).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                         01-AUG-1998 (TREMBLREL. 07, CREATED)
01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
INTERLEUKIN-8 (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Structure of a region of 181 kb containin SUBMITTED (AUG-1998) TO EMBL/GENBANK/DDBJ EMBL; AF043341; G290562; --
EMBL; AF088219; G3719366; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                 FRANCHINI M.;
                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                              PERISSODACTYLA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JANG J.S., KIM B.E.;
SUBMITTED (JAN-1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-JUN-1998
01-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   043646;
01-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE; PS00472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                           ISSUE=BRONCHOALVEOLAR TISSUE;
                                                                                                                                                 75 EVCLNPHTKWVQ 86
                                                                                                                                                                                   Match 70.18;
Local Similarity 58.38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   71 QVCANPEKKWVR
                                                                                                                             1 EICADPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                             -
                                                                                                                                                                                                                                                                                                                                                                                                                                                            :: | | : | | | | : : EICADPKQKWVQ
                                                                                                                                                                                                                                TTED (APR-1998) TO EMBL/GENBANK/DDBJ DATA AF062377; G3126973; -. ER 97 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity 6; Conser
                                                                                                                                                                                                                    97 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                         Conservative
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                                                                                                                                                                                                                                                                                                              EQUIDAE;
                                                                                                                              12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SMALL_CYTOKINES_CC;
                                                                                                                                                                                                                      10742 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    70.1%;
50.0%;
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91
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                                    02,
08,
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                                                                                                                                                                                                                                                                                                              EQUUS
                                  , CREATED)
, LAST SEQUENCE UP
, LAST ANNOTATION
                                                                                                                                                                                   Score 68;
Pred. No.
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 68; DB 4;
Pred. No. 2.89e-02
4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL.
RANTES.
CF404FAD CRC32;
   HERPESVIRUS
NA STAGE; H
                                                                                                                                                                                                                                                                                                                        VERTEBRATA;
                                                                                 PRT;
                                                                                                                                                                                                                    00396FBF CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  containing five CC chemokine BANK/DDBJ DATA BANKS.
                                                                                                                                                                       Mismatches
                                                                                                                                                                                   68; DB 6; 1
No. 2.89e-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>س</u>
                                                                                 95
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   HERPESVIRIDAE;
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                                   ON UPDATE)
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                                                                                                                                                                                                                                                                                                                        MAMMALIA;
                                                                                                                                                                                              Length 97;
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                                                                                                                                                                                                                                                                                                                         EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              91;
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Best Local Similarity 58.3%;
Matches 7; Conservative
                                                                                           01-JUN-1998 (TREMBLREL. 06, CR
01-JUN-1998 (TREMBLREL. 06, LA
01-NOV-1998 (TREMBLREL. 08, LA
B LYMPHOCYTE CHEMOATTRACTANT B
MUS MUSCULUS (MOUSE).
EUKARYOTA, METAZOA; CHORDATA;
SCIUROGNATH; MURIDAE; MURINAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.

SUN R., LIN S.-F., MILLER G.
SUBMITTED (SEP-1996) TO EMBL
EMBL; U75688; G1718266; -.
EMBL; U74585; G1658273; -.
EMBL; U93872; G2246546; -.
EMBL; U93872; G2246546; -.
EMBL; U71366; G3551763; -.
PFAM; PF00048; L18; I.
HYPOTHETICAL PROTEIN.
SEQUENCE 95 AA; 10485 MW;
                                                                                                                                                                                                                                                           055038
055038;
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SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE; 97296220.
NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B.;
NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B.;
"Cell-homologous genes in the Kaposi's sarcoma-associated
"Cell-homologous genes in the Kaposi's sarcoma-associated
"Cell-homologous genes in the Kaposi's sarcoma-associated
"Cell-homologous genes in the Kaposi's sarcoma-associated";";
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MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;

"Molecular mimicry of human cytokine and cytokine response pathway
genes by KSHV.";

SCIENCE 274:1739-1744(1996).
                      SEQUENCE FROM N.A. STRAIN-C57BL/6J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RUSSO J.J., PARRY J.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. NICHOLAS J., RUVOLO V. HENDRICKSON S., GUO H. SUBMITTED (NOV-1996) T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A., CHIEN M.C., CHEN J., YAN M., RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHANG Y., MOORE P. PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P. SUBMITTED (OCT-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE; 97121480.
RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE "Nucleotide sequence of the Kaposi sarcoma-associated (HHY8).";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUBMITTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
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MEDLINE; 98146056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                          74 QICADPSKNWVR
                                                                                                                                                                                                                                                                                                                                                                                         : | | | | | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : 
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                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                            12
                                                                                                                                                                                                                                                                                                                                                                                                                                          85
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                                                                                                                    CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         V.R., BURNS W.H., SANDFORD G.,
H.G., HAYWARD G.S., REITZ M.S.
TO EMBL/GENBANK/DDBJ DATA BANI
                                                                                                MURINAE;
                                                                                                                                                               06, CREATED)
06, LAST SEQUENCE UPDATE)
08, LAST ANNOTATION UPDAT
CTANT BLC.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 67; DB 14;
Pred. No. 4.65e-02;
3; Mismatches 2
                                                                                                                                                                                                                                                                                              PRT;
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                                                                                                SDW
                                                                                                                                                                                                                                                                                            109
                                                                                                                                                                                                                                                                                            B
                                                                                                                    MAMMALIA;
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Y., MOORE P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 95
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                                                                                                                       EUTHERIA;
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                                                                                                                       RODENTIA;
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Best Local Similarity 70.0%;
Matches 7; Conservative
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Best Local Similarity
                                                                                  ULT 18
000526
000626; PRELIMINARY;
01-JUL-1997 (TREMBLREL. 04, L.
01-JUL-1997 (TREMBLREL. 04, L.
01-NOV-1998 (TREMBLREL. 08, L.
                                           MACROPHAGE-DÉRIVED CHEMOKINE MDC OR A-152E5.1. HOMO SAPIENS (HUMAN). EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "A B-cell-homing chemokine made Burkitt's lymphoma receptor-1."; NATURE 391:799-803(1998).
EMBL; AF044196; G2911374; -. SEQUENCE 109 AA; 11927 MW; B
                                                                                                                                                                                                                                                                                                                    EMBL; U91835; G1899259; -. EMBL; U84487; G1888523; -. EMBL; AC004382; G3252821; -.
                                                                                                                                                                                                                                                                                                                                                   ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRWANN J., BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.; "Homo sapiens Chromosome 16 BAC clone CIT987SK-A-152E5."; SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                     BAZAN J.F., BACON K.B., HARDIMAN G., WANG W., SOO K., GREAVES D.R., ZLOTNIK A., SCHALL T.J.;
"A new class of membrane-bound chemokine with a CX3C NATURE 385:640-644(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CX3C CHEMOKINE PRECURSOR.
A-152E5.2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GUNN M.D., NGC WILLIAMS L.T.;
GODISKA R.,
                                 CATARRHINI; HOMINIDAE;
            SEQUENCE FROM N.A
                                                                                                                                                                                      73 FCADPKEQWV 82 : | | | | | : | |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        74 ICVNPRAKWLQ 84
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CHANTRY D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
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397
42202
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54.5%;
                                          CHORDATA;
                                                                                                                                                                                                                                           69.18;
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RAPORT C.J.,
                                                                                                                                                                                                                                                                  MW;
                                                                                   CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                    Score 67; DB 4; I
Pred. No. 4.65e-02;
2; Mismatches 1
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pred. No. 4.65e-02;
3; Mismatches 2
                                                                                                                                                                                                                                                                           POTENTIAL.
CX3C CHEMO
                                                                           PRECURSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERTEBRATA; MAMMALIA;
                                          VERTEBRATA; MAMMALIA;
                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                C8093D7D CRC32;
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SOZZANI S.,
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                                                                                                                                                                                                                                          Length 397;
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ALLAVENA
                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                          EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EUTHERIA; PRIMATES
                                                                                                                                                                                                                                                                                                                                                                                                                                 motif.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ROSSI D.
                                                                                                                                                                                                                                                                                                                                                                                      MASON
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                                                                                                                                                                                                                    Gaps
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Best Local Similarity 58.3%;
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 8; Conser
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O19006;
O19006;
O1-JUL-1997 (TREMBLREL. 0
O1-JUL-1998 (TREMBLREL. 0
O1-NOV-1998 (TREMBLREL. 0
O1-NOV-1998 (TREMBLREL. 0
DETA CHEMOKINE EXODUS-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
TISSUE-TOTAL FETUS;
MEDLINE; 97444139.
HROMAS R., KIM C.H., KLEMSZ M., KRATHWOHL M., FIFE K., COO
SCHNIZLEIN-BICK C., BROXMEYER H.E.;
"Isolation and characterization of Exodus-2, a novel C-C c.
"Isolation and characterization of Exodus-2, a novel C-C c.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., BRANNON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.; "HOMO SAPIENS CHYOMOSOME 16 BAC CIONE CIT987SK-A-152E5."; SUBMITTED (JUN-1988) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U83171; G1931581; ...
EMBL; U83239; G2062425; -..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. CHANG M.S., MCNING MENG T., BOONE T.
                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                            TISSUE-TOTAL FETUS; HROMAS R.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; AC004382; G3252820; -. PFAM; PF00048; 118; 1.
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                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              74 EICADPRVPWV
                                            73 ELCANPEEGWVQ
                                                                                                                                                                                                                                                                                                                                                                                   IMMUNOL. 159:2554-2558(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 EICADPKQKWV 11
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  EICADPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ., MCNINCH J., ELIAS III C., MANTHEY C.L., (BOONE T., ANDREW D.P.; (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     93
                                                                                                                                                                                133 AA;
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AA;
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185:0-0(0).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
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93
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72.7%;
                                                                                                                                                                                  14600 MW;
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                                                                                      Score 66;
Pred. No.
3; Misma
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LAST ANNOTATION UPDAT
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Pred. No. 7.45e-02;
1; Mismatches 2
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MACROPHAGE-DERIVED CHEMOKINE
65EA63D2 CRC32;
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                                                                                                                                                                                B34A5E22 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                             of Exodus-2, a novel C-C chemokine
                                                                                         Mismatches
                                                                                                                No. 7
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                                                                                                                                     DB 11;
                                                                                                              .45e-02;
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                                                                                                                                   Length 133;
                                                                                         Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COOPER S.,
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Best Local S
Matches
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Best Local
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099126;
01-NOV-1996
01-NOV-1996
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JLT 22
043927
043927;
01-JUN-1998
01-JUN-1998
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01-JUL-1997
01-NOV-1998
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CHS1.
USTILAGO MAYDIS (SMUT FUNGUS).
EUKARYOTA; FUNGI; BASIDIOMYCOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
TISSUE-THYMUS;
TANABE S., LU Z., LUO Y., QUACKENBUSH E.J., BERMAN M.A.,
COLLINS-RACIE L.A., MI S., REILLY C., LO D., JACOBS K.A.,
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN=RK32 (A2B3);

XOCONOSTLE-CARARES B., LEON-RA

XOCONOSTLE-CARARES B., LEON-RA

MICROBIOLOGY 142:377-387(1996)

EMBL; X87748; G861151; -.

SEQUENCE 760 AA; 85181 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HEDRICK J.A., ZLOTNIK A.;
SUBMITTED (MAX-1997) TO EMBL,
EMBL; AF006537; G2209189; -.
EMBL; AF00190; G2624927; -.
EMBL; AF00197677; SCYA21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Identification and characterization containing six conserved cysteines.", IMMUNOL. 159:1589-1593(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 USTILAGINOMYCETIDAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
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                                                                                                                                                                                                                                               EICAETKGKW 492
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NCE 133 AA;
                                                                                                                                                                                                                                                                                                                        Similarity 70.0% 7; Conservative
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METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (TREMBLREL. 04, CREATED)
(TREMBLREL. 04, LAST SEQUENCE UPDATE)
(TREMBLREL. 08, LAST ANNOTATION UPDATE)
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llarity 58.3%;
Conservative
(TREMBLREL.
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                                                                                        PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MURIDAE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIDIOMYCOTA; USTILAGINOMYCETES; USTILAGINACEAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LEON-RAMIREZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MURINAE;
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9,6
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                                                                                                                                                                                                                                                                                                                                                Score
Pred.
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
CREATED)
LAST SEQUENCE UPDATE)
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Pred. No. 7.45e-02;
3; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERTEBRATA;
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                                                                                                                                                                                                                                                                                                                     re 64; DB 3; I
1. No. 1.89e-01;
Mismatches
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O83516 PRELIMINARY;
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01-NOV-1998 (TREMBLREL 08, LI
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SEQUENCE FROM N.A.
MEDLINE; 98332770.
MEDLINE; 98332770.
FRASER C.M., NORRIS S.J., WEINSTOCK G.M., WHITE O., SUTTON G.G.,
DODSON R., GWINN M., HICKEY E.K., CLAYTON R., KETCHUM K.A.,
DODSON R., HARDHAM J.M., MCLEDOD M.P., SALZBERG S., PETERSON J.,
SODERGREN E., HARDHAM J.M., MCLEDOD M.P., SALZBERG S., PETERBACK T
KHALAK H., RICHARDSON D., HOWELL J.K., CHIDAMBARAM M., UTTERBACK T
MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND
MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND
MCDONALD L., ARTIACH P., BOWMAN C., WAITHEY L., WEIDMAN J., SMITH H.O.
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CHAIN
SEQUENCE FROM N.A.

FRASER C.M., NORRIS S.J., WEINSTOCK G.M., WHITE O., SUTTON G.G.,
DODSON R., GWINN M., HICKEY E.K., CLAYTON R., KETCHUM K.A.,
DODERCREN E., HARDHAM J.M., MCLEOD M.P., SALZBERG S., PETERSON J.,
KHALAK H., RICHARDSON D., HOWELL J.K., CHIDAMBARAM M., UTTERBACK T.
MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND
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SUBMITTED (CCT-1997) TO EMBL,
EMBL; AJ002211; E1249325; -.
EMBL; AF044197; G2911376; -.
EMBL; AF029894; G3169814; -.
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Burkitt's lymphoma receptor-1.";
NATURE 391:799-803(1998).
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WILLIAMS L.T.;
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EMBL/GENBANK/DDBJ DATA BANI
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Pred. No. 1.16e+00;
2; Mismatches 4
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Best Local s
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                   Q68409
Q68409;
Q68409;
Q1-NOV-1996
Q1-NOV-1996
Q1-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9LT 24
Q67634
Q67634;
Q67634;
Q1-NOV-1996
                                                               "CHA T.A., TOM E., KEMBLE G.W., DUKE G.M., MOCARSKI E.S., SPAETE R.R.; "Human cytomegalovirus clinical isolates carry at least 19 genes not found in laboratory strains.";
J. VIROL. 70:78-88(1996).
EMBL: U33332; G1167943; -.
                                                                                                                                                                                                                                                              HUMAN CYTOMEGALOVIRUS. VIRUSES; DSDNA VIRUSES, CYTOMEGALOVIRUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   with MDV.";
VIROLOGY 213:590-599(1995).
EMBL; U34966; G1185444; -.
PFAM; PF00048; 118; 1.
NON_TER 1 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Isolation and characterization of mapping to the BamHI-I2, BamHI-Q2, genome from lymphoblastoid cells t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GALLID HERPESVIRUS TYPE 1.
VIRUSES; DSDNA VIRUSES, NO RNA STAGE;
ALPHAHERPESVIRINAE; VARICELLOVIRUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUBMITTED (MAR-1998) TO ELEMBL; AE001226; G3322795; HYPOTHETICAL PROTEIN.
                                                                                                                                                                                                                                                                                                                                   ORF UL154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PENG Q., ZEI
SHIRAZI Y.;
                                                                                                                                                                             MEDLINE; 96099416.
                                                                                                                                                                                                   STRAIN=TOWNE;
                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ECO Q PROTEIN (FRAGMENT)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WENTER J.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE; 96074534.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           145 VCVDPEAPWVQ 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity les 6; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31 CTQPRVQKWVQ 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 ICADPKQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3 CADPK-QKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZENG M., BHUIYAN Z.A., UBUKATA E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HORST K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          203 AA; 23132 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              187 AA;
                                                                                                                                                                                                                                                                                                                                                                       (TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TREMBLREL. 01, CREATED)
(TREMBLREL. 01, LAST SEQUENCE UPDATE)
(TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60.8%;
larity 63.6%;
Conservative
                                                                                                                                                                                                                                                                                                                                                       (TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ROBERTS K., WATTHEY L., WEIDMAN J., SMITH H.O.,
  60.8%;
                                             45181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21410 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TO EMBL/GENBANK/DDBJ DATA BANKS
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                                             WW;
                                                                                                                                                                                                                                                                                     RNA
                                                                                                                                                                                                                                                                                                                                              CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 59;
Pred. No.
  Score 59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 59; DB 14;
Pred. No. 1.80e+00;
                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                   STAGE;
                                           79B5D103 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          887D04C3 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 50303E26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of Marek's disease virus (MDV) cDNAs
22, and BamHI-L fragments of the MDV
s transformed and persistently infects
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                           399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  203
                                                                                                                                                                                                                                                                                     HERPESVIRIDAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HERPESVIRIDAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 2; L
1.80e+00;
  DB 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TANAKA A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 187;
Length 399;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 203;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        persistently infected
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                     BETAHERPESVIRINAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NONOYAMA M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
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RESULT 26

OR O93290

AC 093290

AC 093290

DT 01-FEB-1

DT 01-FOV-1

DT 01-NOV-1

DT 01-NOV-1

DE HYPOTHET

GR C27DB.3

OS CAENORIA

OC RHABDITI

RN [1]

RN [2]

RR PERCY C.

RL SUBMITTE

RN [2]

RN [2]

RN [2]

RN MEDLINE;

RA MILSON F

RESULT RE
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Best Local :
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Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               O84834;
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01-JAN-1998
01-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD J.,
BURTON J., CONNELL M., COPSEY T., CODER J., COULSON A., CRAXTON M.,
DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,
HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,
KIRSTEN J., LAISTER N., LARTEILLE P., LIGHTUNG J., LLOYD C.,
MCMUTRAY A., MORTHOREE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
RIFKEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A.,
SONNHAMMER E., STADEN R., SULSTON J., THIERRY-MIEG J., THOMAS K.,
VAUGIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
WILKINSON-SPROAT J., WOHLDMAN P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1998 (TREMBLREL 08
01-NOV-1998 (TREMBLREL 08
01-NOV-1998 (TREMBLREL 08
RIBONUCLEOSIDE REDUCTASE,
                                                            "Genome Sequence of an Chlamydia trachomatis." SCIENCE 0:0-0(1998).
                                                                                                                                                                                                  MITCHELL W.P., OLINGER
                                                                                                                                                                                                                                                                  STRAIN-D/UW-3/CX;
                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                         BACTERIA;
                                                                                                                                                                                                                                                                                                                                                                                                         CHLAMYDIA TRACHOMATIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NATURE 368:32-38(1994).
EMBL; 280214; E347995; -.
HYPOTHETICAL PROTEIN.
SEQUENCE 982 AA; 112538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. MEDLINE; 94150718.
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EUKARYOTA; METAZOA; NEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HYPOTHETICAL
SEQUENCE FROM N.A.
                                                                                                                                                                   DAVIS R.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUBMITTED (SEP-1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RHABDITINA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                188 VCPEAKQWWTQ 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      308 VCEEPKHEW 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 ICADPKQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 ICADPKQKW 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             59.8%;
Similarity 45.5%;
                                                                                                                                                                                                                                                                                                                                                                         CHLAMYDIALES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      contiguous nucleotide sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (TREMBLREL. 02, (TREMBLREL. 05, CTREMBLREL. 08, L PROTEIN C27D8...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
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                                                                                                                                                                                               R L.,
                                                                                                                               Obligate
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8 , 0 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                              08, CREATED)
08, LAST SEQUENCE UPDATE)
08, LAST ANNOTATION UPDATE)
E, LARGE CHAIN.
                                                                                                                                                                                                                                                                                                                                                                         CHLAMYDIACEAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL/GENBANK/DDBJ
                                                                                                                                                                                                  LAMMEL C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DDA; SECERNENTEA; RHABDITIA; RHABDITIDA;
RHABDITIDAE; PELODERINAE; CAENORHABDITIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ₩.
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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3; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 58; DB 5; 1
Pred. No. 2.79e+00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                               Intracellular Pathogen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41972852 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                               .J., F2
R.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1053 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       982
                                                                                                                                                                                                  , FAN J.,
L., ZHAO Q
                                                                                                                                                                                                                                                                                                                                                                         CHLAMYDIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      from
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                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 982
                                                                                                                                                                                                  MARATHE R.,
Q., KOONIN E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      chromosome III of
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   Query Match 58.8% Best Local Similarity 66.7% Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 50.0% Matches 6; Conservative
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Best Local
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Best Local Similarity
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070460 PRELIMINARY;
070460;
01-AUG-1998 (TREMBLREL 0
01-AUG-1998 (TREMBLREL 0
01-AUG-1998 (TREMBLREL 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     023536;
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MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN-D/UW-3/CX;
STEPHENS R.S., KALMAN S., LAMMEL C.J., FAN J., MARATHE R.,
MITCHELL W.P., OLINGER L., TATUSOV R.L., ZHAO Q., KOONIN E.
DAVIS R.W.;
SUBMITTED (MAY-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AE001355; G3329297; -.
SEQUENCE 1053 AA; 120168 MW; 781C1449 CRC32;
                                                                                                                                                                                                                                                                                                                               BEVAN M., STIEKEMA W., MURPHY G., WAMBUTT R., POHL T., TE
KREIS M., KAVANAGH T., ENYTAN K.D., RIEGER M., JAMES R.,
PUIGDOMENECH P., HATZOPOULOS P., OBERNAIER B., DUESTERHOI
JONES J., PALME K., ANSORGE W., DELSENY M., BANCROFT I.,
SCHUELLER C., CHALWATZIS N.;
SUBMITTED (JUL-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-JAN-1998 (TREMBLREL.
01-JAN-1998 (TREMBLREL.
01-AUG-1998 (TREMBLREL.
RESISTANCE GENE HOMOLOG.
                                                                                                                                                                        SUBMITTED
EMBL; 2973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).

EUKARYOTA; VIRIDIPLANTAE; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;

IRACHEOPHYTA; EUPHYLLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;

EUDICOTYLEDONS; ROSIDAE; CAPPARALES; BRASSICACEAE; ARABIDOPSIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE=LYMPHOID;

MGO V.N., TANG H.L., CYSTER

MGO V.N., ED. 0:0-0(1998).

J. EXP. MED. 0:0-0(1998).

EMBL; AF059208; G3068765; -

SEQUENCE 108 AA; 11911 M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
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                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 73 QLCAPPDQPWVD 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 EICADPKQKWVQ
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                                                                                                                                                                                                   DPSIS SEQUENCING PROJECT, ESSA; (JUN-1997) TO EMBL/GENBANK/DDBJ DATA
                                                                                                                                     192 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                        E327026;
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                                  58.8%;
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21535
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07,
                                                                                                                                     MW;
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Pred. No. 4
3; Mismat
Score 57; DB 10;
Pred. No. 4.30e+00;
2; Mismatches 1
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pred. No.
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LAST ANNOTATION UPDATE)
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                                                                                                                                  7BD51863 CRC32;
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2.79e+00;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         108
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                                                                 Length 192;
                                                                                                                                                                                                                                                                                                                                                                                                                                  JAMES R.,
DUESTERHOFT A.
                                                                                                                                                                                                   BANKS
      Indels
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   Gaps
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Best Local S
Matches
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GAO F., MORRISON S.G., ROBERTSON D.L., THORNTON C.L., CRAIG S., KARLSSON G., SODROSKI J., MORGADO M., GALVAO-CASTRO B., BRIESEN H., BEDDOWS S., WEBER J., SHARP P.M., SHAW G.M., HARN B.H.;

"Molecular cloning and analysis of functional envelope genes from human immunodeficiency virus type 1 sequence subtypes A through G. WHO and NIAID Networks for HIV Isolation and Characterization.";

J. VIROL. 70:1651-1657(1996).
                                                                                                                                                                                                                                                                                                                                            NON_TER
SEQUENCE
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Q97013
Q97013;
                                                                                                                                                                                                                                                                                                                                                                                                                       SUBMITIED (MAY-1995) TO EMBL; U27443; G1495977; PFAM; PF00516; GP120; 1. PFAM; PF00517; GP41; 1. ENVPTORE PROFUSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ALLEN E.E.;
SUBMITTED (MAY-1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-FEB-1997 (TREMBLREL 02, CREAT
01-FEB-1997 (TREMBLREL 02, LAST
01-NOV-1998 (TREMBLREL 08, LAST
ENVELOPE GLYCOPROTEIN (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                          ENVELOPE PROTEIN.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HUMAN IMMUNODEFICIENCY VIRUS TYPE 1 (HIV-1).
VIRUSES; RETROID VIRUSES; RETROVIRIDAE; LENTIVIRUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         136 GDQKQRWVQ 144
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                                                                                                                                                                                                                                                    Similarity
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                                                                                                                                                                                                                                                                                                                                               859 AA;
                                                                                                                                                                                                                   Conservative
                                                                                           11
                                                                                                                                                                                                                                                 58.8%;
                                                                                                                                                                                                                                                                                                                                            1
97274 MW;
07:23:54 1999
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                                                                                                                                                                                                                                              Score 57;
Pred. No.
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pri Disclosure; Page 5; 27pp; English.

Chemoattractant protein-1 (MCP-1). The analogue, which lacks the chemoattractant protein-1 (MCP-1). The analogue, which lacks the chemoattractant protein-1 (MCP-1). The analogue, which lacks the chemoattractant protein-1 of MCP-1, acts as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammatory diseases. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared with 75:1 for prior art mutant 7ND.

So Sequence 66 AA;
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                           lung disease.
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CA2152141-A.
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19-JUN-1995; CA-152141.
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W13598 standard; peptide; W13598;
07-NOV-1997 (first entry)
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Human SDF-1-alpha.
Human SDF-1-beta.
Human chemokine MIP-3
Human chemokine beta4
Human chemokine beta-
Interleukin-8/NAP-1.
Amino acid sequence o
Human neutrophil chem
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PS Disclosure; Page 5; 2/pp; English.

CThe present sequence represents an analogue, MCP-1 (11-76), of monocyte CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 CC receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammatory diseases e.g. arthritis, arteriosclerosis and several lung confirmatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably corviding 50% inhibition of binding at a 25:1 ratio or less, compared CC with 75:1 for prior art mutant 7ND.
                                                                                                              PT N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) - PT lacks MCP-1 activity and inhibits receptor binding, useful as PT anti-inflammatory agent
PS Claim 7; Page 5; 27pp; English.

CLaim 7; Page 6; 
      Query Match
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W13597;
W13597;
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Gong J. Lewis I;
WPI; 97-165844/16.
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19-JUN-1995; CA-152141.
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97-165844/16.
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   Score 84; DB 24;
Pred. No. 6.67e-02;
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Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
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Matches 1
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anti-inflammatory agent Claim 5; Page 5; 27pp; English.
Claim 5; Page 5; 27pp; English.
The present sequence represents an analogue, MCP-1 (8-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1
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W13596 standard; peptide;
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(DAND ) DANA FARBER CANCER INST
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21-FEB-1996
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d. No. 6.67e-02;
Mismatches 0;
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ts receptor binding, useful
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                                                                  W09409128-A.
28-APR-1994.
20-OCT-1993; U10074.
22-OCT-1992; US-965678.
(MLCW ) MALLINCKRODT MEI
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(Matsushima K, Naruto M;

WPI; 95-131181/17.

Wound treatment using monocyte chemotactic factor - has potent
therapeutic effect on skin wounds and ulcers
Disclosure; Page 12; 22pp; Japanese.
The invention relates to a new remedy for curing wounds which, instead
of comprising a growth factor, comprises a monocyte chemotactic
activating factor (MCAF) or its variants or derivatives. The factor has
potent effect on skin wounds and ulcers. The present sequence is human
MCAF, the activity of which is exemplified as the new remedy.

Sequence 76 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 receptor. The analogue is useful as an anti-inflammatory agent to block the effects of McP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammation sites. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared with 75:1 for prior art mutant 7ND.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R53398 standard; Protein;
R53398;
15-DEC-1994 (first entry)
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Monocyte chemotactic activating
monocyte chemotactic activating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1; radionuclide; vascular restenosis; alpha; beta; emitting is
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05-MAR-1996
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R87680 standard; protein;
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                                                                                                                                                                                                                                                                                                                                                                                                Mammalian.
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13-SEP-1993; JP-227385.
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94-151314/18
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10; Conservative
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                                                                              MEDICAL INC
                                                                                                                                                                                                                                                                            "Unspecified amino
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Pred. No. 6.67e-02;
0; Mismatches 0
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factor; MCAF; wound remedy.
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Claim 1; Page 48 + Page 36; 56pp; English.
Claim 1; Page 48 + Page 36; 56pp; English.
An expression plasmid, pHM483, for producing MCF(76) consisting of 76 amino acids was constructed. The prod. can be used for e treating bacterial infectious diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          monocyte chemotactic protein-1 (MCP-1) respectively. These oligonucleotides may be labelled with a radionuclide and use therapeutically for the treatment of vascular restenosis. Radiolabelled antisense MCP-1 compounds may be constructed using high energy alpha or beta emitting isotopes rather than the gamma emitters cutomarily used for diagnostic purposes. Antisense MCP-1 compounds inactivate MCP-1 or inhibit production of MCP-1 so that monocytes are not attracted to the area of vascular injury and proliferation of vascular cells is inhibited.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12-NOV-1992.
27-APR-1992; J00550.
09-MAY-1991; JP-135950.
(DAIN) DAINIPPON PHARM CO LTD.
FUKUI T, Matsuo N, Yamada M, Yamagishi
WPI; 92-398864/48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and peptide(s) - is used for inhibiting, treating or imaging areas of vascular restenosis or potential restenosis bisclosure; Page 5; 42pp; English.

The sequences given in R53398-99 represent sense and antisense
                                                                                                                                                           monocyte chemoattractant protein; angioplasty.
                                                                                                                                                                                                                                                                                    T 9
R87677 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Prodn. of polypeptide(s) having monocyte chemotactic activity using expression plasmids with E. coli elements and specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RBS;
                              disulfide_bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB; Q30745-46.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
     disulfide_bond
                                                                                                                                      HOMO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Plasmid;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R28660 standard; Protein; 76
                                                                                  modified_site
                                                                                                                                                                                                                                        21-FEB-1996 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Plasmid; monocyte chemotactic factor; MCF; translation; termination; terminator; initiation; ribosome binding site;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24-MAR-1993
                                                                                                                                                                                                               (3-Ala) MCP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 y Match 100.0%;
Local Similarity 100.0%;
hes 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           52 cadpkqkwvq 61
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nes 10; Conse
                                                                                                                                                                                                                                                                                                                                                                                                                               52 cadpkqkwvq 61
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                                                                                                                                sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              promoter;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          76 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tryptophan; repressor.
/note=
11..36
12..52
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                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                      protein; 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
                                                   "Asp in the native
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Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 84; DB 5; I
Pred. No. 6.67e-02;
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J. No. 6.67e-02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                               MCP-1; mutant;
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                                                   sequence is replaced by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 76;
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                                                   Ala"
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RESULTATION OF THE PROPERTY OF
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Best Local Similarity 100.0%;
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18 MAY-1995.
07-NOV-1994; U12874.
12-NOV-1993; US-152301.
12-NOV-1993; US-152301.
(DAND) DANA FARBER CANCER INST INC.
ROLLIINS B, Zhang YJ;
WPI; 95-215051/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28 Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by Leu and/or 30-Arg by Val. Preferred mutations by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989. The peptides can be used to prevent restenosis, e.g. in patients sequence 76 AA;
                                                 Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) useful for therapy or diagnosis of restenosis, etc.
Disclosure; Column 13-14; 16pp; English.
This is the amino acid sequence of the human monocyte chemoattractant protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent stimulator of monocyte chemotaxis and is produced by injured vascular smooth cells thus attracting monocytes and macrophages which infiltrate the injured area and release growth factor. This causes proliferation of the vascular smooth cells resulting in restenosis. The gene sequence can be used to generate antisense sequences e.g. T48093-7, which can be used to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or macrophages, or smooth muscle cells, esp. in order to prevent vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US5571713-A.
05-NOV-1996.
22-OCT-1992;
22-OCT-1992;
27-MAY-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Monocyte chemotactic protein 1.

Human; monocyte chemoattractant protein; antisense; inhibition; mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
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                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB; T48092
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Kunkel SL, Lyle LR,
WPI; 96-505405/50.
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   Sequence
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   AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                76
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Pred.
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No. 6.67e-02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 codon
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Radio:labelling neutrophil-activating peptide(s) - for imaging rargetted delivery of radioactive agent. Example 10: Column 19-20: 15pp; English.

Will31 represents mature human monocyte chemoattractant protein-1 (MCP-1). MCP-1 was radionuclide labelled and used in a method for imaging a target site in vivo in an animal. Labelled MCP-1 was allowed to accumulate at a target site (having MCP-1 receptors) in the animal and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys chemokine carrying either iodine-123 or iodine-131 can be used in the method. Especially preferred is neutrophil activating peptide-2 (NAP-2) which recognises interleukin-8 receptors and is labelled with technetium-99m, indium-111, copper-65, rhenium-186 or rhenium-188. The method can be used for imaging a site of infection, inflammation, neoplasm, atheromatous lesion or restenosis.
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Best Local S
Matches 1
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05-OCT-1992; 956862.
05-OCT-1992; US-956863.
05-OCT-1992; US-956862.
29-APR-1994; US-235659.
(MLCW) MALLINCKRODT MEDICAL INC.
(UNMI) UNIV MICHIGAN.
                                                                         disulfide_bond disulfide_bond W09513295-A1.
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Mature human monocyte chemoattractant protein-1 (MCP-1).

MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8;

MCP-1; neutrophil activating peptide; labelling; langing; targeting;

radionuclide; infection; inflammation; neoplasm; atheromatous lesion;
                                                                                                                                                                                                                                                                                                                                        (28-Asp) MCP-1.
monocyte chemoattractant protein; MCP-1; mutant; restenosis; angioplasty.
18-MAY-1995.
07-NOV-1994; U12874
                                                                                                                                                                                                                                modified_site
                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R87675 standard; protein; 76 R87675;
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W11131;
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1 CADPKQKWVQ :
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Similarity 100.0%;
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10; Conservative
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11..36
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                                                                                                                                                                                                                            Location/Qualifiers 28
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Pred. No.
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d. No. 6.67e-02;
Mismatches 0;
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6.67e-02;
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RESULPTION RESULPTION REPORT FOR SERVICE F
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Best Local Similarity 100.0%;
Matches 10; Conservative
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                             neoplasms.
Disclosure: page 3; 46pp; E
Peptide is derived from gli
leukocytes and has mol. wt.
Sequence 76 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US7304234-A.
20-JUL-1989.
31-JAN-1989; 030423.
31-JAN-1989; US-304234.
31-JAN-1989; US-304234.
(USSH) US Dept. of Health and Hy
Yoshimura T; Robinson E; Appella
WPI; 89-263501/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-NOV-1993; US-15
(DAND ) DANA FARBE
Rollins B, Zhang
WPI; 95-215051/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis Claim 3; Page 11; 22pp; English.

Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28 Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1999.
                     28-JAN-1993 (first entry)
Sequence of bovine P6 protein.
Monocyte chemoattractant; bovi
inflammation therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-JAN-1990 (first entry)
Peptide from human glioma cell line U-10
Glioma; leucocyte; chemotaxis; neoplasms.
                                                                                                                             R26580 standard;
R26580;
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P90292;
17-JAN-1990 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New peptide with specific chemotactic activity for monocytes from glioma or leucocyte cells, useful for treating infection
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Local Similarity 100.0%;
hes 10; Conservative
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76 AA;
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                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                       Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /label= OTHER
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; 46pp; English.
from glioma cell line U-105MG (ATCC CRL9932)
mol. wt. 8400. Used to treat infections and r
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Appella E;
                                                  bovine
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                                                  P6-derivative;
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6.67e-02;
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                                                                                                                                                                                                      Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis

Claim 5; Page 11; 22pp; English.

Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 28 Tyr by aspartate; (2) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
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Best Local
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Best Local :
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Poly(A+)RNA from bull seminal vesicles was used to prepare a cDNA ir the expression vector lambda gtll. 1.5 x 10(5) cDNA clones were screened with a polyclonal anti-P6 antiserum of monospecific immunoglobulin G and six positives were identified. The insert of suitable cDNA clone, pH42, was cloned into pUC18 and sequenced. pH42 encodes the 11.114 Da precursor of P6. It is called Monocyte Chemoattractant (bMCP-1), which is a homologue of human (h)MCP-1. There is 72% overall AA sequence homology to hMCP-1 with the signal peptide showing 100% and the central region showing 89% homology. Sequence 76 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-JUL-1991; 125251.
31-JUL-1991; DE-125251.
(SCHAP-) SCHAPER & BRUEMMER GMBH & CO
Gramm W, Lins E;
WPI; 92-293438/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                W09513295-A1.
18-MAY-1995.
07-NOV-1994; U12874.
12-NOV-1993; US-152301.
12-NOV-1993; US-152301.
10AND ) DANA FARBER CANCER INST INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (24-Arg) MCP-1. monocyte chemoattractant protein; MCP-1; mutant; restenosis;
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WPI; 95-215051/28.
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R87676;
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03-SEP-1992.
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Local Similarity 100.0%;
hes 10; Conservative
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52 cadpkqkwvq 61
                                                                      Match 100.0%;
Local Similarity 100.0%;
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                                                        10;
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                                                                                                                                                              coronary artery 76 AA;
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11..36
12..52
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Pred. No. 6.67e-02;
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thrombosis, and immune reacti
                                                   Mismatches
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                                                                               84; DB 14;
No. 6.67e-02;
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            chemoattractant cytokines or chemokines. It is a potent stimulator of monocyte chemotaxis and has an extemely high degree of specificity for this cell type. MCP-1 is produced by injured vascular smooth muscle cells and attracts the monocytes and macrophages which infiltrate the area, releasing growth factors and resulting in proliferation of vascular smooth muscle and restenosis. Nucleic acid molecules which are antisense to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may be useful for inhibiting vascular restenosis, partic. following balloon angioplasty or a related process. The molecule may be radiolabelled to increase its therapeutic effect or for imaging areas of potential
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Antisense; monocyte chemotactic protein 1; MCP 1; mCP -1; monocyte; chemoattractant cytokine; chemokine; monocyte; chemotaxis; vascular smooth muscle cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R86859;
                                                                                                                                                                                                     25-JUL-1989; ...
30-MAR-1989; 330446.
30-MAR-1989; US-330446.
(USSH) US Dept. Health and Human.
YOShimura T, Robinson EA, Appella
WPI; 89-300683/41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Page 5; 50pp; English.
This sequence represents the mature form of monocyte chemotactic protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of chemoattractant cytokines or chemokines. It is a potent stimula
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New anti:sense oligo:nucleotide(s) and peptide(s) for inhibiting restenosis - are directed against C-C family cytokine(s) such a monocyte chemotactic protein, opt. radio:labelled for therapy or
        Human derived monocyte chemo-attractant peptide prods. -
glioma cell line U-105MG or peripheral blood mononuclear
Disclosure; fig 2; 66pp; English.
This is a human-derived monoyte chemo-attractant peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human monocyte chemo-attractant peptide-1. Human monocyte chemo-attractant peptide; i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-PSDB; T03528.
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                                                                                                                                                                        N-PSDB; N91337
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14-JAN-1994; US-182917.
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1 CADPKQKWVQ 10
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/product=MCP-1
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chemo-attractant peptide
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No. 6.67e-02;
                                                                                                                                                                                                                                               Leonard
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(MCP-1) sequence
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26-JUL-1994; U08207.
29-JUL-1993; US-099866.
13-OCT-1993; US-136117.
(UPJO) UPJOHN CO.
HOOGWERF AJ, Ledbetter SR;
WPJ; 95-082239/11.
N-PSDB; Q85370.
                                                               DE4125251-C.
03-SEP-1992.
31-JUL-1991;
31-JUL-1991;
(SCHA-) SCHAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Screening for cpds. with anti-heparanase activity - by detecting inhibition of heparin or heparan sulphate degradation, potentially useful for treating arthritis, restenosis, cancer. Claim 13; Page 49; 60pp; English.

Purified heparanases, prepared under reducing conditions and activated with transglutaminase, are given in R70786-804. Most are prepared by reverse transcription of mRNA from activated human leukocytes, then cloning of the cDNA into pVL1392 baculovirus vector, and expression in Sf9 cells in the presence of reduced glutathione and dithiothreitol.

Sequence 99 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chemoattractant protein MCP-1.
Chemoattractant; heparanase; heparin; heparan MCP-1; chemoattractant; cancer; wound healing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MCP-1 exhibits optimal chemotactic activity at a concn. of lnM and has a mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg inflammatory disease, or for the control of neoplasms by accumulation of monocytes at the site of the infection. The corresp. DNA is obtd. by chemical synthesis, by screening reverse trascripts of mRNA from purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5. Sequence 99 AA;
                                             Gramm
                                                                                                                                                                                                                                                                                                                                  Key
                                                                                                                                                                                                                                                                                                                                                                Bos
                                                                                                                                                                                                                                                                                                                                                                                                                                28-JAN-1993 (first entry)
Sequence of P6 precursor p
Monocyte chemoattractant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R26581 standard;
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n W, Lins E;
92-293438/36
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                                 SCHAPER & BRUEMMER GMBH & CO
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No. 6.67e-02;
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No. 6.67e-02;
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Best Local S
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Best Local Similarity 100.0%;
Matches 10; Conservative
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27-APR-1992; JP-135950.
09-MAY-1991; JP-135950.
(DAIN ) DAINIPPON PHARM CO LT.
Fukui T, Matsuo N, Yamada M,
WPI: 92-398864/48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LT 20
R28663 standard; Protein; 99
R28663;
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Poly(A+)RNA from bull seminal vesicles was used to prepare a cDNA in the expression vector lambda gtll. 1.5 x 10(5) cDNA clones were screened with a polyclonal anti-P6 antiserum of monospecific immunoglobulin G and six positives were identified. The insert of suitable cDNA clone, pH42, was cloned into pUCl8 and sequenced.

pH42 encodes the 11,114 Da precursor of P6. It is called Monocyte chemoattractant (bMCP-1), which is a homologue of human (h)MCP-1. There is 72% overall AA sequence homology to hMCP-1 with the signal peptide showing 100% and the central region showing 89% homology.

Sequence 99 AA;
Human monocyte chemoattractant factor hMCP-1.
Human monocyte chemoattractant factor; hMCP-1; chemokine; vimeningitis related homologous antigenic sequence; MRHAS; RVimmunoassay; diagnosis; treatment; prophylactic; bacterial;
                                                                                                                                                                                                                                         E.coli strains
Disclosure; Page 43-44; 55pp; English.
An expression plasmid, pHMC076 for producing MCF(76) consisting of 76 amino acids was constructed. DNA encoding MCF(76) was prepd. using a recombinant plasmid pHMCF7.

Sequence 99 AA;
                                                     IT 21
R73914 standard; protein;
R73914;
05-DEC-1995 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             treating inflammation, also for diagnosis
                                                                                                                                                                                                                                                                                                                     Prodn. of polypeptide(s) having monocyte chemotactic using expression plasmids with E. coli elements and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Plasmid; monocyte chemotactic factor; MCF; translation; termination; terminator; initiation; ribosome binding s
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Drug containing
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llarity 100.0%;
Conservative
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24..99
/label= mat_protein
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Pred.
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Pred.
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thrombosis,
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                                                                                                                                                                                         Mismatches
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No.
                                                                                                                                                                                   DB 5; Lens
6.67e-02;
                             hMCP-1; chemokine; vaccine;
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                   MRHAS; RV-1;
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PT asthma and ILLUCULE.

PS Example 11; Fig 5; 83pp; English.

CC The present sequence is human chemokine beta10 (Ck beta10) or CC monocyte chemotactic protein 4 (MCP-4) Drol3+ variant, which can CC be used to treat patients deficient in Ck beta10, while a Ck beta10 can be used to reduce excessive levels of Ck beta10 CC antagonist can be used to reat leukaemia, solid tumours, chronic or CC opportunistic infections, autoimmune diseases, asthma, fibrotic CC diseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, regulates haematopoiesis and generates CC antibodies. Labelled Ck beta10 can be used to identify its cognate receptor, while cells expressing the receptor can be used to screen cC compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and bears marrow failure, silicosis, sarcoidosis, hyper-eosinophilic
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28-SEP-194; CA0516.
28-SEP-194; US-127499.
(SHAR/) SHARMA L R.
(VALS/) VAN ALSTYNE D.
Sharma LR, Van Alstyne D;
WPI; 95-147431/19.
New peptide(s) and corresp. antibodies for meningitis - the peptide(s) corresp. to ho sites on bacterial and viral agents and on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Drol3+ chemokine beta10 or monocyte chemotactic protein 4 variant. Human; chemokine beta10; Ck beta10; treatment; antagonist; solid tumour; infection; autoimmune disease; asthma; antibody; fibrotic disease; psoriasis; neurodegenerative disease; wound healing; haematopoiesis regulation; gene therapy; chromosome identification; monocyte chemotactic protein 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       detecting and preventing meningitis

Claim 47; Fig 8/10; 98pp; English.

R73914 is the chemokine Human moncoyte chemoattractant factor hMCP-1.

It contains the meningitis related antigenic sequences (MRHAS) claime in R73895 and R73907, which are recognised by a monoclonal antibody from the hybridoma Rubella virus (RV)-1. The claimed MRHAS peptides may be used in immunoassays to diagnose the presence of bacterial and/or viral meningitis agents in a sample, or in prophylactic and therapeutic meningitis treatments. The peptides may also be used as vaccines against meningitis.
                                                                                                                                                                                                                                                                                                                               Polypeptide encoding chemokine protein 4 - useful to treat tum
                                                                                                                                                                                                                                                                                                                                                                    Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima
Parmelee D, White J;
WPI; 97-435153/40.
                                                                                                                                                                                                                                                                                                                                                                                                                       28-AUG-1997.
23-FEB-1996; U02598.
23-FEB-1996; WO-U02598.
(HUMA-) HUMAN GENOME SCI INC.
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W22675;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        leukaemia; MCP-4; Drol3+ variant.
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Local Similarity 100.0%;
nes 10; Conservation
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1. No. 6.67e-02;
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WO9731098-A1.
28-AUG-1997.
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be used to
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          diseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, regulates haematopoises and generates antibodies. Labelled Ck betall can be used to identify its cognate receptor, while cells expressing the receptor can be used to screen compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthitis, autoimmune, chronic inflammatory or the compounds of the compou
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The present sequence is human chemokine betal0 (Ck betal0) or The present sequence is human chemokine betal0 variant, which can monocyte chemotactic protecin 4 (MCP-4) Bac 3 variant, which can used to treat patients deficient in Ck betal0, while a Ck betal0 antagonist can be used to reduce excessive levels of Ck betal0 betal0 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic
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                                              w22672;
19-MAR-1998 (first entry)
Bac 2 chemokine betall or
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                                                                                                                                 W22672 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        be used to isolate genes encoding similar and for chromosome identification. Sequence 75 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               infectious diseases, allergies, prostaglandin dependent fever and bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can
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Example 11; Fig 5; 8
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protein 4 - useful to treat tumours, autoimmune disease, infection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (HUMA-) HUMAN GENOME SCI INC.
Adams M, Alderson R, Applebau
Parmelee D, White J;
WPI: 97-435153/40.
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W22673 standard;
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ne betal0 or monocyte chemotactic protein 4 variant. Ine betal0; Ck betal0; treatment; antagonist; Infection; autolmmune disease; asthma; antibody;
                                                                                                                                 Protein;
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90.0%;
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Best Local
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23-FEB-1996; U02598.

23-FEB-1996; WO-U02598.

(HUMA-) HUMAN GENOME SCI INC.

Adams M, Alderson R, Applebaum E

Parmelee D, White J;

WPI; 97-435153/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-MAR-1998 (first entry)
19-MAR-1998 (first entry)
Droll/2 chemokine betal0 or monocyte chemotactic protein 4 variant.
Human; chemokine betal0; Ck betal0; treatment; antagonist;
solid tumour; infection; autoimmune disease; asthma; antibody;
fibrotic disease; psoriasis; neurodegenerative disease;
wound healing; haematopolesis regulation; gene therapy;
chromosome identification; monocyte chemotactic protein 4;
Polypeptide encoding chemokine beta 4 and monocyte chemotactic protein 4 - useful to treat tumours, autoimmune disease, infection, asthma and fibrosis Example 11; Fig 5; 83pp; English.

The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) Drol1/2 variant, which can be used to treat patients deficient in Ck beta10, while a Ck beta10 antagonist can be used to reduce excessive levels of Ck beta10. Ck
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Adams M, Alderson R, Applebaum
Parmelee D, White J;
WPI: 97-435153/40.
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WO9731098-A1.
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23-FEB-1996; U02598.
23-FEB-1996; WO-U02598.
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Pred. No. 1.78e-01;
1; Mismatches 0;
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The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) Bac 1 variant, which can be used to treat pattents deficient in Ck beta10, while a Ck beta10 antagonist can be used to reduce excessive levels of Ck beta10 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic diseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, regulates haematopoiesis and generates antibodies. Labelled Ck beta10 can be used to identify its cognate receptor, while cells expressing the receptor can be used to compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and boused to infectious diseases, allergies, prostaglandin dependent fever and some marrow failure, silicosis, sarcoidosis, hyper-eosinophilic syndrome, lung inflammation and atheroscierosis. Ck beta10 cDNA can
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Query Match
Best Local Similarity
Matches 9; Conse
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Bac I chemokine beta10 or monocyte chemotactic protein 4 variant.
Bac I chemokine beta10] Ck beta10; treatment; antagonist;
solid tumour; infection; autoimmune disease; asthma; antibody;
fibrotic disease; psoriasis; neurodegenerative disease;
wound healing; haematopoiesis regulation; gene therapy;
chromosome identification; monocyte chemotactic protein 4;
leukaemia; MCP-4; Bac 1 variant.
                                                                                                                                be used to isolate and for chromosome Sequence 82 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (HUMA-) HUMAN GENOME SCI INC.
Adams M, Alderson R, Applebaum
Parmelee D, White J;
WPI; 97-435153/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Polypeptide encoding chemokine beta 4 and monocyte chemotactic protein 4 - useful to treat tumours, autoimmune disease, infect
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23-FEB-1996; WO-U02598
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WO9731098-A1.
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1 CADPKQKWVQ
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larity 90.0%;
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larity 90.0%;
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   re 80; DB 27; 1
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---hes 0;
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PA (SMIK) SMITHKLINE BEDECHAM CORP.

PI Kreider BL, Li H, Pelus L, White JR;

PI Rwp1; 97-259956/33.

PT en new chemokine(s) able to mobilise stem cells - used where

PT increased levels of haematopoietic cells are required, e.g. to

PT increase resistance to infection

PS Claim 7; Page 11-12; 24pp; English.

CC of mobilising stem cells. The chemokine, CKbeta-10, which is capable

CC of mobilising stem cells. The chemokine can be used therapeutically to

CC improve stem cell mobilisation, optionally together with a colony

CC stimulating factor or other haematoregulatory agent. It can be used

CC wherever an increased level of haematopoietic cells is needed, e.g. to

CC increase the immune response to chronic infection (particularly

CC bacterial or parasitic), to promote wound healing, in (transplant)

CC patients with reduced bone marrow function as a result of

CI immunosuppressive treatment or disease, and to provide more rapid

CC diseases. The induced stem cells may be harvested for subsequent return

CC to the patient, optionally after they have been genetically manipulated

CC co-administered with a cycotoxic drug.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LT 28
W30191 standard; Protein; 98
W30191;
                           (ICOS-) ICOS CORP. Godiska R, Gray PW; WPI; 97-489645/45.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Monocyte chemotactic protein 5.
MOP-5; human; macrophage; chemokine; inhibitor; antiinflammatory; atherosclerosis; Crohn's disease; arthritis; anglogenesis; tumour; metastasis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Stem cell mobilising chemokine CKbeta-10.

Haematopoietic cell; parasitic infection; colony stimulating factor; haematoregulator; immune response; bacterial infection; transplant; wound healing; bone marrow; immunosuppression; regeneration; neoplastic disease; viral disease; gene therapy; cytotoxic drug.
                                                                                      02-OCT-1997.
26-MAR-1997; U04898.
27-MAR-1996; US-622851.
(ICOS-) ICOS CORP.
                                                                                                                                                                                                                                                                                                        Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-OCT-1996; U16959.
24-OCT-1995; US-006051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W17665;
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                                                                                                                                                                                                              WO9735982-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                          Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                   therapy; diagnosis; medical imaging
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21-MAY-1998 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                   Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   58 cadpkekwvg 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
nes 9; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 CADPKQKWVQ
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                                                                                                                                                                                                                                          /label-
/note= "
                                                                                                                                                                                                                                                                                                  /label= Sig_peptide 24..98
                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               95.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a cytotoxic drug.
                                                                                                                                                                                                                                          Mat_protein
"(Claim 4)"
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Pred.
1; M
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SO OF STATE CHARLES AND CONTRACT OF 
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Best Local S
Matches
                                                                                               New Chemokine Ck(beta)-4 and -10 genes and polypeptide(s) - useful to treat, e.g. leukaemia, solid tumours and auto-immune diseases Claim 19; Fig 2; 53pp; English.

A novel human chemokine, Ck beta-10 (R93087), was identified as the product of a cDNA clone (T17050) isolated from a 9-wk early human tissue cDNA library. The protein is structurally related to the chemokine family. Recombinant Ck beta-10 can be obto. by incorporating the cDNA into a vector and expression of the protein in e.g. E. coli, COS or Sf9 cells. Ck beta-10 can be used to treat solid tumours, chronic infections, psoriasis, asthma and allergy, to regulate haematopoiesis, promote wound healing, and to inhibit analysis construction of the protein in the color of the color of the protein in e.g. E. coli, COS or Sf9 cells. Ck beta-10 can be used to treat solid tumours, chronic infections, psoriasis, asthma and allergy, to regulate haematopoiesis, promote wound healing, and to inhibit analysis of the color of the color of the protein in the protein i
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29-FEB-1996.
23-AUG-1994; U
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R93087 standard; Protein; 9
R93087;
R93087;
27-AUG-1996 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Page 36-37; 47pp; English.
This polypeptide comprises human macrophage-derived monocyte chemotactic protein-5 (MCP-5), a novel C-C chem Its amino acid sequence was deduced from a cDNA clone (s T90880 and T90883) isolated from a human macrophage cDNA control of the co
                                                     angiogenesis. It can colony formn. during
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; T17050.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Adams MD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (HUMA-) HUMAN GENOME
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ZA-006936.
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llarity 90.0%;
Conservative
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25..98
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                                                           chemotherapy.
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Pred. No. 1.78e-01;
1; Mismatches 0;
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                                                                                                                                                                                                                                          Process and continued as the present sequence is human chemokine beta10 (Ck beta10) or The present sequence is human chemokine beta10 (Ck beta10) or Commoncyte chemotactic protein 4 (MCP-4), which can be used to treat patients deficient in Ck beta10, while a Ck beta10 antagonist can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic diseases, used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic diseases, asomit promotes wound healing, regulates haematopoiesis and generates antibodies.

CC paperiasis and neurodegenerative diseases. It also promotes wound healing, regulates haematopoiesis and generates antibodies. Cc Labelled Ck beta10 can be used to identify its cognate receptor, while cells expressing the receptor can be used to screen compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and commonwe, lung inflammation and atherosclerosis. Ck beta10 cDNA can be used to isolate genes encoding similar peptides, in gene therapy so sequence on AA.
                                                                                                                                                      Query Match 95.2%;
Best Local Similarity 90.0%;
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 95.2%;
Best Local Similarity 90.0%;
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Human chemokine beta10 or monocyte chemotactic protein 4.
Human; chemokine beta10; Ck beta10; treatment; antagonist;
solid tumour; infection; autoimmune disease; asthma; antibody;
fibrotic disease; psoriasis; neurodegenerative disease;
wound healing; haematopoiesis regulation; gene therapy;
chromosome identification; monocyte chemotactic protein 4;
leukaemia; MCP-4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W09731098-A1.
28-AUG-1997.
23-FEB-1996; U02598.
23-FEB-1996; WO-U02598.
(HUMA-) HUMAN GENOME SCI INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Polypeptide encoding chemokine beta 4 and monocyte chemotactic protein 4 - useful to treat tumours, autoimmune disease, infection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima ParmeLee D, White J; WPI; 97-435153/40.
N-PSDB; T85029.
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W22670 standard; Protein; 98 AA.
W22670;
19-MAR-1998 (first entry)
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                                                                              CADPKQKWVQ 10
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1..23
/label= sig_peptide
24..98
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                                                                                                                                                  Score 80; DB 27; Length 98; Pred. No. 1.78e-01; 1; Mismatches 0; Indels
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A chemoattractant expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical tomonocyte chemoattractant protein-l/monocyte chemotactic
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Mol. Cell. Biol. (1989) 9:4687-4695
The human homolog of the JE gene encodes a monocyte secretory
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A35474; A33476; S03339; I51841; A60299; A32300; A32396;
A34561; I57488; JC1096
                                                                                                                                                                                                                                                                             Yoshimura, T.; Leonard, E.J.
Adv. Exp. Med. Biol. (1991) 305:47-56
                                                                Int. J. Cancer (1990) 45:795-797
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#journal Mol. Cell. Biochem. (1993) 126:61-68

#title The expression of monocyte chemotactic protein (MCP-1) in

human vascular endothelium in vitro and in vivo.

#cross-references MUID:94150478

#accession I57488
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#title Identification of the monocyte chemotactic protein
osteosarcoma cells and monocytes: detection of a
N-terminally processed form.
#cross-references MUID:90211336
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Yamada, M.; Larsen, C.G.; Oppenheim, J.J.; Matsushima, K.
#journal Biochem. Biophys. Res. Commun. (1989) 159:249-255
Cloning and sequencing of the cDNA for human monocyte
#title chemotactic and activating factor (MCAF).
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                                                                                                                                                                                                                                                                                                                                                                                                                                         Ye, O.N.; Su, G.F.; Yuan, Y.; Huang, C.F. Chinese J. Microbiol. Immunol. (1994) 14:29-32 The PCR, cloning and sequencing of human monocyte chemoattractant protein-1 (MCP-1) gene.
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#product monocyte chemoattractant protein i
#status experimental #label MAT2\
#modified_site pyrrolidone carboxylic acid
mature form) #status experimental\
                                                                                                     #domain signal sequence #status predicted 
#product monocyte chemoattractant protein 
experimental #label MAT\
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#journal DNA Cell Biol. (1991) 10:671-679
#title Gene expression and cDNA Cloning identified a major basic protein constituent of bovine seminal plasma as bovine monocyte-chemoattractant protein-1 (MCP-1).
#cross-references MUID:92096117
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##residues 1-99 ##label WEM
##coss-references GB:M84602; GB:M85264; NID:g163394; PID:g163395
ccession B39296
                                             ##residues
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##residues 50-68,'X',70-74,'X',76 ##label WE2

##experimental_source seminal vesicle

##experimental_source seminal vesicle
                                             ##molecule_type protein
##residues 1-99 ##
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Similarity 100.0%;
10; Conservative
MCP-1
26/1;
                                                                                                 Wempe, F.; Kuhlmann, J.K.; Scheit, K.H.
Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
Characterization of the bovine monocyte chemoattractant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A39296 #type complete
monocyte chemoattractant protein 1 precursor - bovine
monocyte chemotactic factor 1; seminal plasma protein P6
#formal_name Bos primigenius taurus #common_name cattle
03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
                                                                          JC2336
                                                                                                                                                                                        JC2336 #type complete
monocyte chemoattractant protein-1 - bovine
#formal_name Bos primigenius indicus #common_name zebu cattle
20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
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#product monocyte chemoattractant protein 1 #status
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#binding_site carbohydrate (Asn) (covalent) #status
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Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 10; Conservative
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                   ##residues 1-99 ##label ZAC
##cross-references EMBL:X79416; NII
##CFICATION ##superfamily macrophage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ##residues 1-125 ##label YOS
##cross-references GB:M57440; NID:g165469; PID:g165470
##cross-references GB:M57440; NID:g165469; PID:g165470
##superfamily macrophage inflammatory protein
RY #length 125 #molecular-weight 13776 #checksum
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#residues 1-99 ##label
iNCE S57497
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Similarity 100.0%;
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monocyte chemoattractant protein-1 precursor - pig
#formal_name Sus scrofa domestica #common_name domestic
30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
08-Sep-1997
                                                                                                                        Zach, O. submitted to the EMBL Data S57498
glycoprotein
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                                                                                                                                                                                                                                                         JC2136
                                                                                                                                                                                                                                                                        Biochem. Biophys. Res. Commun. (1994) 199:962-968
Porcine luteal cells express monocyte chemoattractant
protein-1 (MCP-1): Analysis by polymerase chain reaction
and cDNA cloning.
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JC2136
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J. Immunol. (1991) 146:3483-3488
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monocyte chemoattractant protein-1 - rabbit
#formal_name Oryctolagus cuniculus #common_name domestic
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#length 99  #molecular-weight 11114  #checksum
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                                                                                                                     ##cross-references EMBL:X77603; NID:g602551; PID:g602552
WT This protein is identified as a potent eosinophil chemoattractant.
IFICATION #superfamily macrophage inflammatory protein
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##cross references EMBL:Ull8941; NID:g687655; PID:g687656
##croarion #superfamily macrophage inflammatory protein
#superfamily macrophage inflammatory protein
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                                                                                                                                                                                   ##residues
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Local Similarity 90.0%;
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Local Similarity 90.0%;
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JC2478
                                                                                                                                                                                                                                              Jose, P.J.; Adcock, I.M.; Griffiths-Johnson, D.A.; Berkman, N.; Wells, T.N.C.; Williams, T.J.; Power, C.A.
Biochem. Biophys. Res. Commun. (1994) 205:788-794
Eotaxin: Cloning of an eosinophil chemoattractant cytokine and increased mRNA expression in allergen-challenged
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J. Exp. Med. (1995) 181:1211-1216
Constitutive and allergen-induced expression
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#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
09-May-1997
                                                                                                          glycoprotein
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#formal_name Rattus norvegicus
21-Feb-1995 #sequence_revision
08-Sep-1997
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##experimental_source corpus luteum
#FICATION #superfamily macrophage inflammatory protein
                 ##residues
                 ##molecule_type DNA
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Similarity 90.0%;
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monocyte chemotactic protein 3 precursor -
monocyte chemoattractant protein MCP-3
#formal_name Homo sapiens #common_name man
28-Oct-1994 #sequence_revision 28-Oct-1994
24-Sep-1998
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monocyte chemoattractant protein-2 - pig
#formal_name Sus scrofa domestica #common_name domestic
24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change
03-May-1996
                                                                                                                                                                                                                                                  Opdenakker, G.; Fiten, P.; Nys, G.; Froyen, Speleman, F.; Laureys, G.; Van Damme, J. Genomics (1994) 21:403-408
The human MCP-3 gene (SCYA7): cloning, seque assignment to the C-C chemokine gene clust
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Scheit, K.H.

Biochem. Biophys. Res. Commun. (1994) 205:148-153

Porcine luteal cells express monocyte chemoattractant

protein-2 (MCP-2): Analysis by cDNA cloning and northern
                                                Biochem. Biophys. Res. Commun. (1993) 191:535-542
Human monocyte chemotactic protein-3 (MCP-3): Molecular
cloning of the cDNA and comparison with other chemokines.
JC1478
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#map_position 17q11-17q12
#introns 36/1, 75/2
ASSIFICATION #superfamily macrophage inflammatory protein YWORDS cytokine; glycoprotein; inflammation
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#cross-references_MUID:93267104
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##molecule_type mRNA
##residues 1-120 ##label RES
##cross-references GB:L04985; NID:g349820; PID:g349821
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This protein induces proteinase secretion and chemo
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Molecular cloning of MCP-3: a human monocyte-derived monocyte chemoattractant protein.
JC4912 #type complete
eotaxin - human
eotaxin - human
#formal_name Homo sapiens #common_name man
01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change
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#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
09-May-1997
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#product monocyte chemotactic protein 3 #status
predicted #label MAT\
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                                                                                                                                                                                                                                                                                                 macrophage inflammatory protein #molecular-weight 13741 #checksum
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Pred. No. 2.60e-04;
0; Mismatches 1
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Pred. No. 2.60e-04;
0; Mismatches 1
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#accession I52322
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##residuce
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[FICATION #superfamily macrophage inflammatory protein
**Y #length 92 #molecular-weight 10335 #checksu
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##residues 1-92 ##label RES
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This protein has eosinophil specific chemotatic activity
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Local Similarity 80.08;
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Local Similarity 80.0%;
les 8; Conservative
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JC4912
JC4912
                                                                          interleukin-8 - dog
#formal_name Canis lupus familiaris #common_name dog
19-May-1994 #sequence_revision 19-May-1994 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Shi, M.M.; Godleski, J.J.; Paulauskis, J.D.
Blochem. Blophys. Res. Commun. (1995) 211:289-295
Molecular cloning and posttranscriptional regulation of
macrophage inflammatory protein-1 alpha in alveolar
macrophages.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               152322 #type complete
macrophage inflammatory protein-lalpha - rat
#formal_name Rattus norvegicus #common_name Norway rat
29-May-1998 #sequence_revision 29-May-1998 #text_change
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Biochem, Biophys. Res. Commun. (1996) 225:1045-1051
Human dermal fibroblasts express ectaxin: Molecular clonia mRNA expression, and identification of ectaxin sequence
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Ishikawa, J.;
Suzuki, K.
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#product eotaxin #status predicted #label
pth 97 #molecular-weight 10790 #checksum
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              Suzuki,
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Pred. No. :
1; Mismat
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Pred. No. 1.73e-03;
1; Mismatches 1
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Best Local Similarity 80.0%;
Matches 8; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                              #authors Beaubien, B.C.; Collins, P.D.; Jose, P.J.; Totty, N.F.;
HSuan, J.; Watterfield, M.D.; Williams, T.J.
#journal Biochem. J. (1990) 271:797-801
#title A novel neutrophil chemoattractant generated during an inflammatory reaction in the rabbit peritoneal cavity vivo. Purification, partial amino acid sequence and structural relationship to interleukin 8.
#cross-references_MUID:91058518
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#title
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#title Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and their expression in spleen cells.
#cross-references_MUID:91225489
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##residues 23-33,'x',35,'x',37-46,'X',48-49,'I',51-53 ##label
FICATION #superfamily beta-thromboglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ##residues 1-101 ##label YOS
##cross-references GB:M57439; NID:g165552; PID:g165553
NCE S13052
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This protein is a polymorphonuclear leukocyles and is involved in the host defense function
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interleukin-8 - rabbit
neutrophil attractant/activation protein-1
#formal_name Oryctolagus cuniculus #common_name domestic
interleukin-8 - sheep
#formal_name Ovis sp. #common_name sheep
21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change
                                                                                                                                                                                                                                                                                   cytokine cytokine #length 101 #molecular-weight 11402 #checksum
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#length 95 #molecular-weight 10611 #checksum
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Cloning of a canine gene
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                                        I46997 #type complete
interleukin-8 - sheep
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Pred. No. 1.73e-03;
1; Mismatches 1
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Pred. No. 1.73e-03;
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#journal Immunol. Cell Biol. (1994) 72:398-405
#title Cloning, sequencing, expression and inflammatory activity in
#cross-references MUID:95137691
#accession 146997
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##SUPERIANALY beta-thromboglobulin
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Nucleotide sequence of ovine interleukin 8 cDNA using
polymerase chain reaction.
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#superfamily beta-thromboglobulin
#length 101 #molecular-weight 11292
Goodman, R.B.; Foster, D.C.; Mathewes, S.L.; Osborn, S.G.; Kuljper, J.L.; Forstrom, J.W.; Martin, T.R. Blochemistry (1992) 31:10483-10490
Molecular cloning of porcine alveolar macrophage-derived neutrophil chemotactic factors I and II; identification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               #common_name domestic sheep
06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
08-Sep-1997
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interleukin 8 - sheep
#formal_name_Ovis_orientalis_aries, Ovis_ammon
                                                                                                                                                alveolar macrophage chemotactic factor-I (AMCF-I)
interleukin-8 homolog pig
fformal name Sus scrofa domestica #common_name domestic pig
30_Apr-1993 #sequence_revision 18-Nov-1994 #text_change
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Pred. No. 1.73e-03;
1; Mismatches 1;
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Pred. No. 1.73e-03;
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         ##experimental_source bone marrow
This protein belongs to the beta-chemokine family which is one of
the major HIV-suppressive factors. It plays roles in autoimmune
processes such as multiple sclerosis and rheumatoid arthritis and
in tumor biology, and contribute to the trafficking and
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##cross references GB:M86923; NID:g164520; PID:g164521
IFICATION #superfamily beta-thromboglobulin
# #length 103 #molecular-weight 11633 #chec
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##residues 1-103 ##label GOO
##experimental_source alveolar macrophage
##note sequence extracted from NCBI backbone (NCBIN:117415,
##note | NCBIP:117416)
                                                                                                    ##molecule_type mRNA
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P.; Van Aelst, I.; Van Damme, J.; Opdenakker, G.
Biochem. Biophys. Res. Commun. (1997) 231:726-730
Human monocyte chemotactic protein-2: cDNA cloning and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; M.J.; Weiss, D.J.; Murtaugh, M.P.
J. Biol. Chem. (1994) 269:77-85
Regulation of interleukin-8 expression in porcine macrophages by bacterial lipopolysaccharide.
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02-May-1997 #sequence_revision 18-Jul-1997
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#formal_name Sus scrofa domestica #common_name domestic pig
02-jun-1995 #sequence_revision 02-jun-1995 #text_change
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24-99
    #journal
#title
                                                                                                               #authors Rollins, B.J.; Morrison, E.D.; Stiles, C.D.
#journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:3738-3742
#title Cloning and expression of JE, a gene inducible by
platelet-derived growth factor and whose product
cytokine-like properties.
#cross-references MUDI:88234501
#accession A30209
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#journal J. Immunol. (1993) 151:6225-6236
#title cDNA cloning and expression of guinea
attractant protein-1 (NAP-1): NAP-1
#cross-references MUID:94065176
#accession 148148
                                  #authors
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##molecule_type DNA
##residues 1-101 ##label
##residues GB:L04986;
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##cross-references GB:M19681;
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Kawahara, R.S.; Deuel, T.F.
J. Biol. Chem. (1989) 264:679-682
Platelet-derived growth factor-inducible
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A30209; A44771; A30861
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PDGF-inducible JE glycoprotein precursor - mouse
#formal_name Mus musculus #common_name house mouse
01-pec-1989 #sequence_revision 01-pec-1989 #text_change
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Neutrophil attractant protein-1 - guinea pig
#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
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#product monocyte chemotactic protein-2 #status
predicted #label MAT
jth 99 #molecular-weight 11246 #checksum 6596
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70.0%;
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Pred. No. 4.39e-03;
3; Mismatches (
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Pred. No. 6.96e-03
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NID: g459764;
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                                                                 NID:g193486;
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                                                              PID:g387168;
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Best Local S
Matches
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#construction of TPARI, a gene whose expression is repressed by the tumor promoter 12-O-tetradecanoylphorbol accession 13-accetate (TPA).

#cross-references MUID:95073497

#accession 153416
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##cross-references GB:J04467;
##molecule_type mRNA
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Local Similarity 80.0%;
                                                                                                                                                                                                                                                                           71 CIDPKLKWIQ 80
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interleukin-8 homolog - mouse
#formal_name Mus sp. #common_name mouse
02-Aug-1996 #sequence_revision 02-Aug-1996
28-Feb-1997
                                                                                                                                 A53497 #type complete
pre-B-cell growth-stimulating factor precursor - mouse
#formal_name Mus musculus #common_name house mouse
02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change
10-Sep-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JE
26/1; 65/2
                                  Nagasawa, T.; Kikutani, H.; Kishimoto, T.
Proc. Natl. Acad. Sci. U.S.A. (1994) 91:2305-2309
Molecular cloning and structure of a pre-B-cell
growth-stimulating factor.
A53497
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ilarity 70.0%;
Conservative
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Pred. No.
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Pred. No. 1.10e-02;
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NID:g193488; PID:g387169
                                                                                                                                                                                                                                                                                                               No. 2.73e-02; Mismatches 2;
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#title Signal sequence trap: a cloning strategy
proteins and type I membrane proteins.
#cross-references MUID:93342488
#accession I59582
                                                                                                      #journal
#title
                                                           #accession
                                                                      #title Signal sequence trap: a cloning strategy proteins and type I membrane proteins. #cross-references_MUID:93342488
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          ##status preliminary; trai
##molecule_type mRNA
##residues 1-93 ##label RES
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##residues 1-89 ##label F
##cross-references GB:L12029;
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**cross-references GB:D21072; NID:g413905; PID:d1005177; PID:g468457
                                                                                                                                                                                                                                                                                                                                                                                                                               ##residues 1-93 ##label SPO
##cross-references EMBL:U16752; NID:g1272194; PID:g571508
## #length 93 #molecular-weight 10666 #checksum
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 ##cross-references GB:L12030;
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Similarity 70.0%;
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G07697
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cytokine SDF-1-beta - human
#formal_name Homo sapiens #common_name man
21-Dec-1996 #sequence_revision 06-Jun-1997
17-Jul-1998
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cytokine
#length 89 #molecular-weight 10032 #checksum
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                                                                                                                 Honjo, T.
Science (1993) 261:600-603
                                                                                                                                                                 181182
159582
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02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change
28-Feb-1997
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                                                          181182
                                                                                                                                                Tashiro,
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Pred. No. 2.73e-02;
1; Mismatches 2
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Pred. No. 2.73e-02
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; NID:g393179;
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 NID:g393181;
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PID:g393182
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#cross-references MUID:89313739
#accession A32791
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#accession A37034
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                                                                                                                                               ##molecule_type mRNA
##residues 1-99 ##label KOW
##cross-references GB:M26383; NII
                                                                                                                                                                                                                                                                                                                                                                                                                                              ##molecule_type mRNA
##residues 1-99 ##label MA1
##cross-references EMBL:Y00787; NID:g34518; PID:g34519
##cross-references EMBL:Y00787; NID:g34518; PID:g34519
##note the sequence shows similarity to several
platelet-derived factors, a v-src-induced protein,
growth-regulated gene product (gro), and an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ##residues 1-99 ##label MUK
##cross-references GB:M28130; NID:g186367; PID:g186368
#heross-references GB:M28130; NID:g186367; PID:g186368
##crote the authors failed to translate the last thirty-six
##note nucleotides of the second exon
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Local Similarity 70.0%;
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interleukin-8 precursor - human
beta-thromboglobulin-like protein; fibroblast-derived
neutrophil-activating factor alpha; lung carcinoma-derived
chemotaxin; lymphocyte-derived neutrophil-activating
factor; monocyte-derived neutrophil Chemotactic factor;
monocyte-derived neutrophil-activating factor
#formal_name Homo sapiens #common_name man
08-Dec-1992 #sequence_revision 08-Dec-1992 #text_change
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#length 93
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J. Exp. Med. (1988) 167:1883-1893
                                                                         King, C.H.; Gordo
submitted to the
                                                                                                                             S37634
                                                                                                                                                                                                                                                                                              Kowalski, J.; Denhardt, D.T.
MO1. Cell. Biol. (1989) 9:1946-1957
Regulation of the mRNA for monocyte-derived
neutrophil-activating peptide in differentiating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Molecular cloning of a human monocyte-derived neutrophil chemotactic factor (MDNCF) and the induction of MDNCF mRNA by interleukin 1 and tumor necrosis factor.
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J. Immunol. (1989) 143:1366-1371
Genomic structure of the human monocyte-derived neutrophil chemotactic factor IL-8.
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A37034; JL0041; A32791; S37634; PL0107; A28598; A27488; A39960; A60401; A60591; S15827; S04216; A60567; A60847; S15417; S03975; I54560; I55992; I37902; S67519
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                                                                                                   Gordon, G.S.; Konieczkowski, M.;
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Pred. No. 2.73e-02;
1; Mismatches 2
                                                                   on, G.S.; Konieczkowski, M.; Sedor, J.R. EMBL Data Library, February 1992
                                                                                                                                                  NID:g188627; PID:g188628
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Appella, E.; Oppenheim, J.J.; Leonard, E.J.
#journal Proc. Natl. Acad. Sci. U.S.A. (1987) 84.9233-9237
#title Purification of a human monocyte-derived neutrophil chemotactic factor that has peptide sequence similarity other host defense cytokines.
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Christophers, E.
#journal Biochem. Biophys. Res. Commun. (1988) 151:883-890
#title Structure determination of a human lymphocyte derived neutrophil activating peptide (LYNAP).
#cross-references_MUID:88162914
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#journal J. Exp. Med. (1989) 169:1895-1901

#title Purification and partial primary sequence of a chemotactic protein for polymorphonuclear leukocytes derived from human lung giant cell carcinoma LU65C cells.

#cross-references MUID:89279141
                                                               #authors
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##residues 28-69 ##label YOS
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#residues 23-32,'XR',35,'X',37-52,'L',54 ##label
##experimental_source lung giant cell carcinoma LU65C
                                                                                                                      ##molecule_type protein
##residues 23-33,'X',35,'X',37-42 ##label VAN
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##residues 23-32 ##label SCH
##experimental_source dermal fibroblasts
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##residues 28-59 ##label WAL
NCE A39960
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##residues 28-99 ##label GRE
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                                                                                                                                                                                                                                   Van Damme, J.; Decock, B.; Conings, R.; Lenaerts, J.P.;
Opdenakker, G.; Billiau, A.
Eur. J. Immunol. (1989) 19:1189-1194
The chemotactic activity for granulocytes produced by virally infected fibroblasts is identical to monocyte-derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Schroeder, J.M.; Sticherling, M.; Henneicke, H.H.; Preissner, W.C.; Christophers, E.
J. Immunol. (1990) 144:2223-2232
IL-lalpha or tumor necrosis factor-alpha stimulate release of three NAP-1/IL-8-related neutrophil chemotactic proteins in human dermal fibroblasts.
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Nakagawa, H.; Hatakeyama, S.; Ikesue, A.; Miyai, FEBS Lett. (1991) 282:412-414
Generation of interleukin-8 by plasmin from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Walz, A.; Peveri, P.; Aschauer, H.; Baggiolini, M. Biochem. Biophys. Res. Commun. (1987) 149:755-761 Purification and amino acid sequencing of NAF, a novel neutrophil-activating factor produced by monocytes.
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                                                                                                                                                                                                             interleukin
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AVLPR-interleukin-8, the human fibroblast-derived

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#title Purification of granulocyte chemotactic peptide/interleukin-8
reversiandle sequence heterogeneity similar to that
of beta-thromboglobulin.
#cross-references_MUID:89231715
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##residues 21-33,'X',35,'X',37-47 ##label YO2
##note the forms starting from positions 21, 23, and
##note represented 8%, 47%, and 45%, respectively,
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##residues 28-47 ##label VA3
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##residues 21-67 ##label VA2
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##residues 23-33,'X',35,'X',37-47 ##label FEB
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of annotations omitted.
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Inflammatory cytokines induce synthesis and secretion protein and a neutrophil chemotactic factor but not beta-2--microglobulin in human synovial cells and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Van Damme, J.; Van Beeumen, J.; Opdenakker, G.; Billiau, A. J. Exp. Med. (1988) 167:1364-1376
A novel, NH-2-terminal sequence-characterized human monokine possessing neutrophil chemotactic, skin-reactive, and granulocytosis-promoting activity.
                                                          K.; Mizumo, S.; Suzuki, K.
Immunol. Lett. (1990) 24:165-170
Coding region structure of interleukin-8 gene of human lung
giant cell carcinoma LU65C cells that produce
LUCT/interliukin-8: homogeneity in interleuki-8 genes.
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Biochem. J. (1991) 275:581-584
Formation of neutrophil-activating peptide 2 from
platelet-derived connective-tissue-activating peptide III
by different tissue proteinases.
nces_MUID:91248085
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Three forms of monocyte-derived neutrophil chemotactic (MDNCF) distinguished by different lengths of the amino-terminal sequence.
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Best Local Similarity

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                                                                                                 #introns
                                                                                                                                                                                                                                                                  #journal Kidney int. (1992) 41.220-225

#title Isolation and characterization of cDNA from renal tubular epithelium encoding murine Rantes: A small intercrine from the Scy superfamily.

#cross-references MUID:92277990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            #journal Mol. Cell. Biol. (1994) 14:2914-2925
#title Definition of a lipopolysaccharide-responsive element in the #cross-references MUID:94217689
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##residues
1-40,'E',42-91 ##label NEI
##residues
This chemoattractant for monocytes but not neutro;
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Schall, T.J.; Simpson, N.J.; Mak,
Fur J. Immunol. (1992) 22:1477-1/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Shin, H.S.; Drysdale, B.E.; Shin, M.L.; Noble, S.N.; Paznekas, W.A.
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J. Immunol. (
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11-Sep-1998
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monocyte chemoattractant cytokine RANTES precursor -
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#product monocyte chemoattractant cytokine RANTES
                   #domain signal sequence #status predicted #label SIG\
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                                                           cytokine;
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                                                           inflammation
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##molecule_type mRNA
##residues 1-92 ##label DAV
##coss-references EMBL:X12531; NID:g53122; PID:g53123
REFERENCE A30552
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#authors
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                                                                                                                               #contents
                                                                                                                                                      #journal
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#accession S04533
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#accession S11685
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##cross-references EMBL:X12531
##note the authors translated the codon GAG for residue 49 as
##note Asp and ATT for residue 91 as Asn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ##molecule_type mRNA
1-92 ##label KWO
##cross-references GB:J04491; NID:g201524; PID:g201525
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##note the authors' translation of the nucleotide sequence
##note differs at several positions from the sequence give
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Davatelis, G.; Tekamp-Olson, P.; W.
Luedke, C.; Gallegos, C.; Coit,
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Grove, M.; Lowe, S.; Graham, G.; Pragnell, I.; Plumb, M.
Nucleic Acids Res. (1990) 18:5561
Sequence of the murine haemopoietic stem cell
inhibitor/macrophage inflammatory protein 1-alpha gene.
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macrophage inflammatory protein-1-alpha precursor - mouse
heparin-binding chemotaxis protein; L2G25B protein;
SCI/MIP-la; SIS alpha; stem cell inhibitor/macrophage
inflammatory protein 1-alpha; T-cell activation protein
                                                                                                          J. Exp. Med. (1989) 170:2189
erratum
A53885
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Cloning and characterization of a cDNA for murine macrophage inflammatory protein (MIP), a novel monokine with inflammatory and chemokinetic properties.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermsen, K.; Luedke, C.; Gallegos, C.; Coit, D.; Merryweather, J.; Cerami, A.
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17-Jul-1992 #sequence_revision 17-Jul-1992 #text_c
08-Sep-1997
Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S04533
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70.0%;
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91 #molecular-weight 10071
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Pred. No. 4.28e-02;
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, D.; Merryweather, J.;
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#accession I56104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 #authors Wolpe, S.D.; Davatelis, G.; Sherry, B.; Beutler, B.; Hesse, D.G.; Nguyen, H.T.; Moldawer, L.L.; Nathan, C.F.; Lowry, S.F.; Cerami, A.

#journal J. Exp. Med. (1988) 167:570-581

#title Inflammatory and neutrophil chemokinetic properties.

#cross-references_MJID:88154745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                #title Resolution of the two components of macrophage inflammatory protein 1, and cloning and characterization of one of those components, macrophage inflammatory protein 1 beta.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ##residues 1-92 ##label RES
##cross-references GB:M73061; NID:g199694;
This protein is a monokine.
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1-21,'L',23-61,'A',63-92 ##label BRO
##cross-references GB:M23447; NID:g533240; PID:g533241
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##residues 24-33,'XX',36-42 ##label WOL
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                                                                                                                                                                                                                                                Local Similarity es 7; Conser
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                                                                                                                                                              CADPKQKWVQ
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A family of small inducible proteins secreted by are members of a new superfamily that includes and fibroblast-derived inflammatory agents, groand indicators of various activation processes.
               C50407 #type fragment monocyte adherence-induced protein 5 beta - human (fragment) #formal_name Homo sapiens #common_name man 06-Nov-1992 #sequence_revision 06-Nov-1992 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sherry, B.; Cerami, A.
J. Immunol. (1991) 146:4031-4040
Genomic structure of murine macrophage inflammatory protein-1-alpha and conservation of potential regulatory sequences with a human homolog, LD78.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Widmer, U.; Yang, Z.; van Deventer, Sherry, B.; Cerami, A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.; Davatelis, G.; Wolpe, S.D.; Masiarz, F.; Coit, D.; Cerami,
                                                                                                                                                                                                                                                                                                                                  #length 92
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03-May-1996
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#product macrophage inflammatory protein #status
experimental #label MAT
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                                                                                                                                                                                                                                                                 78.6%;
                                                                                                                                                                                                                                                                                                                                #molecular-weight 10345
                                                                                                                                                                                                                                           Score 66;
Pred. No.
2; Misma
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                                                                                     #journal
#title
                                                                                                                                                                                                                                                                                                         Seuanez, H.N.; Leonard, W.J.

#journal J. Biol. Chem. (1991) 266:17531-17536.

#title The gene encoding the Act-2 cytokine. Genomic structure,

HTLV-I/tax responsiveness of 5' upstream sequences, and

chromosomal localization.

#cross-references_MUID:91373378
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                       #cross-references MUID:89071764
#accession A31767
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##residues 1-50
                                                                                                                                                                                                                                            ##residues
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##cross-references GB:X53682; NID:g34217; PID:g34218
##experimental_source natural killer cell, strain CD3-CD2+, F5,
                                                                                                                                                                                                                       ##residues 1-14,'S',16-69,'G',71-92 ##label NAP ##cross-references GB:M69201; NID:g178021
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##molecule_type mRNA
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Local Similarity 70.0%;
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macrophage inflammatrory protein 1-beta precursor - human
cytokine HC21; G-26 protein; H400 homolog; lymphocyte
activation gene 1 protein (LAG-1); MIP-1beta; pAT744; SC
protein (misidentification); SIS gamma homolog; T-cell
activation protein 2 (Act-2); T-cell activation protein
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J. Immunol. (1990) 144:4434-4441
Monocyte adherence results in selective induction of novel genes sharing homology with mediators of inflammation antissue repair.
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A60407
                                                                Proc. Natl. Acad. Sci. U.S.A. (1988) 85:9704-9708 Identification, cloning, and characterization of an immune activation gene.
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Cloning and expression of a lymphocyte activation gene
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#length 50 #checksum 9927
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07-Jun-1990 #sequence_revision 29-May-1998 #text_change
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                                                                                                                                                    Lipes, M.A.; Napolitano, M.; Jeang,
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Mechiche, S.; Viegas-Pequignot, E.; Hercend, T.; Triebel,
                                                                                                                                 Leonard, W.J.
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                                                                                                                                                  K.T.; Chang, N.T.;
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*#cross-references GB:X16166; NID:g32035; PID:g32036
REFERENCE A30574
                                                                                                             SUMMARY
                                                                                                                                                                                                                                                                    CLASSIFICATION
KEYWORDS
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  Query Match 76.2%;
Best Local Similarity 70.0%;
Matches 7; Conservative
                                                                                                                                                                                        24-92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PERENCE A30552
#authors Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocyte and fibroblast-derived inflammatory agents, growth factors, and indicators of various activation processes.
#cross-references MUID:89093958
#accession D30552
                                                                                                                                      34-58,35-74
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#cross-references_MUID:89140347
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#accession A37411
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#cross-references MUID:90038522
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pp_position 17q21-17q21
trons 26/1; 64/2
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##cross-references GB:J04130; NID:g178017; PID:g178018
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##residues 1-39
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    ts annotation; conformation and disulfide bond assignments by (1)H-MMR, residues 24-92
This protein is secreted by activated lymphocytes and monocytes.
is bound by chemokine (C-C) receptor 5 (see PIR:A43113) and receptor 1 (see PIR:A45177).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Clore, G.M.; Lodi, P.J.; Garrett, D.S.; Gronenborn, A.M. submitted to the Brookhaven Protein Data Bank, January 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Miller, M.D.; Hata, S.; Malefyt, R.D.W.; Krangel, J. Immunol. (1989) 143:2907-2916
A novel polypeptide secreted by activated human T
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Eur. J. Immunol. (1989) 19:1045-1051
Isolation and characterization of a cDNA encoding a cytokine which is induced by stimulation via the C structure on human T lymphocytes.
                                                                                                        #length
                                                                                                                                                                                                                                                                    #superfamily macrophage inflammatory protein
chemotaxis; cytokine; inflammation
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                                                                                                  #domain signal sequence #status predicted #label SIG\
#product macrophage inflammatory protein 1-beta #status
experimental #label MAT\
#disulfide_bonds #status experimental
#disulfide_bonds #status experimental
#th 92 #molecular-weight 10212 #checksum 7597
Score 64; DB 1; L
Pred. No. 1.04e-01;
1; Mismatches 2
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PID:g339727
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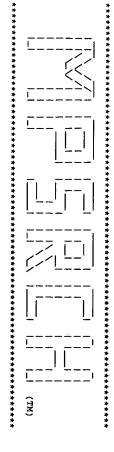
Gaps

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Db 74 CADPSESWVQ 83
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Qy 1 CADPKQKWVQ 10

Search completed: Thu Apr 1 07:27:32 1999
Job time: 13 secs.

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Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

MPsrch\_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:25:50 1999; MasPar time 2.24 Seconds 119.693 Million cell updates/sec

Tabular output not generated.

Title: Sequence: Description: Perfect Score: >US-08-927-939-7 (1-10) from US08927939.pep 84 1 CADPKQKWVQ 10

Scoring table: PAM 150 Gap 15

Searched: 74019 segs, 26840295 residues

Post-processing: Minimum Match 0% Listing first 100 summaries

Database:

swiss-prot36 1:swissprot

Statistics: Mean 24.646; Variance 32.043; scale 0.769

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result	Score	% Query Match	Length	B	ID	Description	Pred. No.
щ	84	100.0	99	- }	MCP1_HUMAN	MONOCYTE CHEMOTACTIC P	5.05e-07
N	84	٠	99	Н	MCPA_BOVIN	CHEMOTACTIC	5.05e-07
ω	84	100.0	99	$\vdash$	MCP2_BOVIN	CHEMOTACTIC	5.05e-07
4	84	100.0	101	Н	MCP1_CANFA	MONOCYTE CHEMOTACTIC P	
G	84		125	r	MCP1_RABIT	CHEMOTACTIC	
σ	83	98.8	99	ب	MCP1_PIG	CHEMOTACTIC	
7	80		98	_	MCP4_HUMAN	MONOCYTE CHEMOTACTIC P	
- α	77	91.7	96	ب	EOTA_CAVPO	EOTAXIN PRECURSOR (EOS	
9	77	91.7	97	Н	EOTA_HUMAN	EOTAXIN PRECURSOR (EOS	2.39e-05
10	77	91.7	97	Н	EOTA_MOUSE	EOTAXIN PRECURSOR (EOS	.39€
: =	77	91.7	97	Ц	EOTA_RAT	EOTAXIN PRECURSOR (EOS	2.39e-05
12	77	91.7	99	Н	MCP3_HUMAN	MONOCYTE CHEMOTACTIC P	
13	77	91.7	99	ш	MCP2_PIG		
14	77		120	щ	MCP1_CAVPO	MONOCYTE CHEMOTACTIC P	2.39e-05
15	73		92	<u>بــر</u>	MIIA_RAT	MACROPHAGE INFLAMMATOR	2.03e-04
16	73	0	101	μ.	IL8_CANFA	INTERLEUKIN-8 PRECURSO	.03€
17	73	86.9	101	ш	IL8_RABIT	INTERLEUKIN-8 PRECURSO	2.03e-04
18	73	Ó	101	Н	IL8_SHEEP	INTERLEUKIN-8 PRECURSO	2.03e-04
19	73	Ġ	103	سر	IL8_PIG	INTERLEUKIN-8 PRECURSO	2.03e-04
20	73	5	104	ب	MCP5_MOUSE	MONOCYTE CHEMOTACTIC P	2.03e-04
21	71	4	89	μ	MIP4_HUMAN	MACROPHAGE INFLAMMATOR	5.81e-04
22	71	4	99	Н	MCP2_HUMAN	MONOCYTE CHEMOTACTIC P	5.81e-04
23	70	83.3	101	ب	IL8_BOVIN	INTERLEUKIN-8 PRECURSO	9.79e-04

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MACROPHAGE INFLAMMATOR T-CELL SPECIFIC RANTES CHEMOKINE CC-3 PRECURS MACROPHAGE INFLAMMATOR MACROPHAGE INFLAMMATOR MACROPHAGE INFLAMMATOR MACROPHAGE INFLAMMATOR T-CELL SPECIFIC RANTES T-CELL SPECIFIC T-TRANSCRIPTION DISTORTER T-CELL SPECIFIC RANTES T-CELL SPECIFIC T-TRANSCRIPTION TEAMATOR T-CELL SPECIFIC RANTES T-CELL SPECIFIC	INTERLEUKIN-8 PRECURSO MONOCYTE CHEMOTACTIC P MONOCYTE CHEMOTACTIC P STROMAL CELL-DERIVED F STROMAL CELL-DERIVED F MACROPHAGE INFLAMMATOR INTERLEUKIN-8 PRECURSO
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[4]
SEQUENCE FROM N.A.
MEDLINE; 90290466.
SHYY Y.J., LI Y.S., KOLA
SHYY Y.J., TTOPHYS. RES. C
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98
99
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MEDLINE; 89184525.

ROBINSON E.A., YOSHIMURA T., LEONARD SHABANOWITZ J., HUNT D.F., APPELLA E.

SHABANOWITZ J., HUNT D.F., APPELLA E.
                                                                                                                                             ADV.
                                                                                                                                                                                                                                      SEQUENCE FROM N.A. MEDLINE; 94150478. LI Y.S., SHYY Y.J.
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MEDLINE; 91207938.
CHANG H.C., HSU E., FREEMAN G.J.,
INT. IMMUNOL. 1:388-399(1989).
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[4]
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LARSEN C.G., OPPENHEIM
BIOCHEM. BIOPHYS. RES.
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01-JAN 1990 (REL. 13, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)
(MONOCYTE CHEMOATTRACTANT PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE
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MEDLINE; 92095166.
YOSHIMURA T., LEONARD
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KOLATTUKUDY P.E.;
MOL. CELL. BIOCHEM.
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                          BIOCHEM. BIOPHYS.
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LEONARD E.J.;
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   STRUCTURE
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B., CONINGS R.,
BIOPHYS. RES.
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S (HUMAN).
CHORDATA; 1
   MODELLING
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DL. 9:4687-4695(1989).
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832
592
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ES. COMMUN. 169:346-351(1990)
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                                                                                                                                                      305:47-56(1991).
                                                           82-92
                                                                                                                                                                  E.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  , NOTAKE M., OYAMADA Y., FUKUI J.J., MATSUSHIMA K.; COMMUN. 159:249-255(1989).
                         COMMUN. 167:904-909(1990).
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BGAL_ASPOF
INV1_DAUCA
RDGB_DROME
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                                                                                   86:1850-1854(1989)
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                                                                                                       E.J.,
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BETA-GALACTOSIDASE PRE
BETA-FRUCTOFURANOSIDAS
RETINAL DEGENERATION B
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                                                                                                                                                                                                                                                                                                J.D.,
                                                                                                         TANAKA S.,
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                                                                                                          GRIFFIN P.R.,
                                    DAMME
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3.15e+01
4.73e+01
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  EMBL; M30816; G386961

EMBL; M31625; G386961

EMBL; M24545; G307163

EMBL; M28226; G338009

EMBL; M14768; G34514;

EMBL; M37719; G487124

EMBL; M37719; G338007

EMBL; M28225; G338007

EMBL; M28223; G338007

EMBL; M28224; G338007

EMBL; S69738; G545465

EMBL; S71513; G240868

EMBL; A17786; G641145

PIR; A35474; A35474.

PIR; S03339; S03339;

PDB; IDOK; 12-MAR-97.

PDB; IDOK; 11-MAR-97.

PDB; IDOK; 11-MAR-97.
CHAIN
MOD_RES
DISULFID
DISULFID
CARBOHYD
VARIANT
MUTAGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                           KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
FEBS LETT. 395:277-282(1996).
-I- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES
CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID
ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT
OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
                                                                                                                                          PDB;
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ZHANG Y.J., RUTLED
J. BIOL. CHEM. 269
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GRONENBORN A.M., CLORE G.M.;
PROTEIN ENG. 4:263-269(1991).
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WEBER M., UGUCCIONI M., BAGGIOLINI M., CL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HANDEL T.M., DOMAILLE P.J.;
BIOCHEMISTRY 35:6569-6584(1996).
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LUBKOWSKI J., BUJI
                                                                                            SIGNAL
                                                                                                          CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUBUNIT
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L; M30816; G386961; JOINED.
L; M31625; G386961; JOINED.
L; M24545; G307163; -...
L; M28226; G338009; -...
L; M4768; G34514; -...
L; M37719; G487124; -...
L; M28225; G338007; JOINED.
L; M28223; G338007; JOINED.
L; M28224; G338007; JOINED.
L; S69738; G545465; -...
L; S71513; G240868; -...
L; S71513; G240868; -...
L; S71513; G240868; -...
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SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.
PTM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET CELL SELECTIVITY. DELETION OF THE AMINO- TERMINAL RESIDUE CONVERTS IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOATTRACTANT. SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                  158105; -.
ITE; PS00472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OWSKI J., BUJACZ G., DOMAILLE STRUCT. BIOL. 4:64-69(1997).
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                                                                                                         CHEMOTAXIS;
                                                                                                                                          14-OCT-96.
15-OCT-94.
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EM. 269:15918-15924(1994).
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                                                                                                                    SMALL_CYTOKINES_CC;
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                                                                                                         SIGNAL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAILLE P.J.,
POTENTIAL.
A -> T.
MISSING: LOSS
MISSING: LOSS
                                                                     MONOCYTE CHEMOTACTIC PREPAREDLIDONE CARBOXYLIC
                                                                                                      INES_CC; 1.
INFLAMMATORY RESPONSE; 3D-STRUCTURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HANDEL T.M.,
 유유
ACTIVITY.
                                                                     PROTEIN 1.
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ALD CONTRACTOR AND CONTRACTOR OF CONTRACTOR 
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Best Local S
Matches 1
                                                                                                                                  DISULFID
DISULFID
SEQUENCE
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01-DEC-1992 (REL. 24, CREATED)
01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
01-DCC-1995 (REL. 32, LAST ANNOTATION UPDATE)
01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC SEMINAL FLUID PROTEIN).
BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MUTAGEN
MUTAGEN
                                                                                                                                                                                                                                                                                                                                                             C-C) (CHEMOKINE CC).
EMBL; L32659; G624394; -.
EMBL; M84602; G163395; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       WEMPE F., KUHLMANN J.K., SCHEIT K.H.;
BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BIOCHEM.
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MUTAGEN
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MUTAGEN
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PIR; JC2336; JC2336.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. MEDLINE; 94338337.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE; 92181448.
WEMPE F., EINSPANI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA CELL BIOL.
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TISSUE=SEMINAL PL
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MEDLINE; 92096117.
WEMPE F., HENSCHEN A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EUTHERIA;
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CADPKQKWVQ 84
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                                                           Similarity
10; Conse
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10; Conse
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                                                                                                                                                                                                                                                                                9500; 1MCA.
PS00472; SMALL_CYTOKINES_CC;
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BIOL. 10:671-679(1991).
                                                                                                                                                                                                                                                                    CHEMOTAXIS;
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AA;
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larity 100.0%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                      THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MISSING: 90% REDUCTION IN ACTIVITY.

MISSING: 83% REDUCTION IN ACTIVITY.
D-A: 90% REDUCTION IN ACTIVITY.
N-A: 50% REDUCTION IN ACTIVITY.
R->F: 95% REDUCTION IN ACTIVITY.
S->Q: 40% REDUCTION IN ACTIVITY.
Y-D: LOSS OF ACTIVITY.
R->L: LOSS OF ACTIVITY.
D->L: 90% REDUCTION IN ACTIVITY.
                                                       Score 84;
Pred. No.
0; Misma
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Pred. No. 5.05e-07;
0; Mismatches 0;
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D->L: 90%
5355B695
                                                                                                                                                 MONOCYTE CHEMOTACTIC PROTEIN 1A.
PYRROLIDONE CARBOXYLIC ACID (BY
SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
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                                                       e 84; DB 1; Len
1. No. 5.05e-07;
Mismatches 0;
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                                                                                            Length 99;
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Best Local S
Matches 1
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01-NOV-1995 (REL. 3
01-NOV-1995 (REL. 3
15-JUL-1998 (REL. 3
                                                                                                                                                                    SCYAZ OR MCP1.
CANIS FAMILIARIS (DOG).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
EUTHERIA; CARNIVORA.
                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDAT
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (M
CHEMOATTRACTANT PROTEIN 2).
                                                                                                                                                                                                                       P52203;
01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1)
CHEMOATTRACTANT PROTEIN-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; CYTOKINE;
        KUMAR A.G., BALLANTYNE C.M., MICHAEL L.H., KUKIELKA G.L., YOUKER K./
LINDSEY M.L., HAMKINS H.K., BIRDSALL H.H., MACKAY C.R., LAROSA G.J.,
ROSSEN R.D., SMITH C.W., ENTMAN M.L.;
CIRCULATION 95:693-700(1997),
-i- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY
REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.
MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INCOTHE
REPERFUSED MYOCARDIUM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WEMPE F., HANES J., SCHEIT K.H.;
DNA CELL BIOL. 13:1-8(1994).
-I- FUNCTION: CHEMOTACTIC FACTOR
CAN BIND HEPARIN.
-I- SUBUNIT: MONOMER OR HOMODIMER
-I- SIMILARITY: BELONGS TO THE II
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE;
WEMPE F.,
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                                                                                                                              SEQUENCE FROM N.A.
TISSUE-JUGULAR VEIN ENDOTHELIAL;
MEDLINE; 97176620.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C-C) (CHEMOKINE CC).
EMBL; S67954; E118856; -.
EMBL; S67956; G544997; -.
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
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INDUCTION: BY THE-ALPHA.
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24
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TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
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Pred.
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BY SIMILARITY.
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HEPARIN-BINDING; INFLAMMATOF
BY SIMILABITY.
MONOCYTE CHEMOTACTIC PROTEIN
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PRECURSOR (MCP-2) (MONOCYTE
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5.05e-07;
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Best Local
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LT 6
MCP1_PIG
P42831;
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DISULFID
CARBOHYD
CARBOHYD
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EUTHERIA; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P28292;
01-DEC-1992 (REL. 24, CREATED)
01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
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MOD_RES
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C-C) (CHEMOKINE CC).
EMBL; U29653; G1144186;
                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                            MOD_RES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  YOSHIMORA T., YUHKI N.;
J. IMMUNOL. 146:3483-3488(1991).
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN-NEW ZEALAND WHITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORYCTOLAGUS CUNICULUS (RABBIT)
EUKARYOTA; METAZOA; CHORDATA;
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                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NEUTROPHILS.
- SUBUNIT: MONOMER OR H
- SIMILARITY: BELONGS T
C-C) (CHEMOKINE CC).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAR VEINS, AND INFILTRATING LEUKOCYTES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CADPKQKWVQ 84
                                                                                       CADPKQKWVQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   P13500;
                                                                                                                                                        100.0%;
Similarity 100.0%;
10; Conserved:
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Similarity 100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                CHEMOTAXIS; SIGNAL;
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CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE
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                                                                                                                                                                                                                                   112
125 AA;
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                  STANDARD;
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TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
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BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 1.
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BY SIMILARITY.
A7075B14 CRC32;
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                                                                                                                                                                                                                                                     POTENTIAL.
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BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                         PYRROLIDONE CARBOXYLIC SIMILARITY).
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                                                                                                                                                                                                                                                                                       POTENTIAL.
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                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                              INFLAMMATORY RESPONSE; GLYCOPROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                     FBAC9D27 CRC32;
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                                                                                                                                                                           84; DB 1; I
No. 5.05e-07;
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No. 5.05e-07
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Best Local S
Matches
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DISULFID
SEQUENCE
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01-NOV-1995
15-JUL-1998
MONOCYTE CHE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CYTOKINE;
SIGNAL
                                                          UGUCCIONI M., LOETSCHER P., FORSSMANN U., LI Y., KREIDER B., GAROTTA G., THELEN M., J. EXP. MED. 183:2379-2384(1996).
                                                                                                                                                                                                                  MEDLINE; 97113354.

GARCIA-ZEPEDA E.A., COMBADIERE C.,
LAVIGNE F., HAMID Q., MURPHY P.M.,
J. IMMUNOL. 157:5613-5626(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; 248479; G683717;
EMBL; X79416; G872313;
                                                                                                                                                                                                                                                                                                                                                                       EUKARYOTA; METAZOA;
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                       SCYA13 OR MCP4 OR NCC1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NEUTROPHILS.
-!- SUBUNIT: MONOMER OR
-!- SIMILARITY: BELONGS
C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBMITTED (JUL-1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ZACH O.R.F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BIOCHEM. BIOPHYS. RES.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SCYA2
  TISSUE-FETAL;
                    SEQUENCE FROM N.A.,
                                                                                                                              MEDLINE;
                                                                                                                                                   TISSUE-FETAL
                                                                                                                                                                       SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                          TISSUE-HEART
                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                  HOMO SAPIENS (HUMAN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOD_RES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUBMITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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995 (REL. 32, LAST SEQUENCE UPDATE)
998 (REL. 36, LAST ANNOTATION UPDATE)
998 (REL. 36, TAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PS00472; SMALL_CYTOKINES_CC; 1.
: CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE
                                                                                                                              96235049
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                      ĀND
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                                                                                                                                                                                                                                                                                                                                                                                         CHORDATA; VERTEBRATA;
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24
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HOMODIMER; IN EQUILIBRIUM (BY TO THE INTERCRINE BETA FAMILY
                      SEQUENCE
                                                                                                                                                                         SEQUENCE OF 17-98
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 83;
Pred. No.
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BY SIMILARITY.

MONOCYTE CHEMOTACTIC PROTEIN 1.

MONOCYTE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PYRROLIDONE CARBOXYLIC SIMILARITY).
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BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ECC3AFB4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                      ROTHENBERG M.E.,
LUSTER A.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 1; Lo
8.83e-07;
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                                                                                   BAGGIOLINI
                                                                                                          DEWALD
                                                                                                                                                                                                                                                                                                                                                                                              TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
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                                                                                                        в.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (MONOCYTE
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                                                                                                                                                                                                                                                               SARAFI M.N.,
                                                                                 M.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SCHEIT K.H.;
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                                                                                                        LIMA S.H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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Best Local
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DANTE M., GIBSON A.;

SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.

-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,

-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, THROUGH

CCR2B AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH

CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMILATION OF

LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.

MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL

WALL DURING THE DISEASE PROCESS OF ARTHEROSCLEROSIS. MAY PLAY A

ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                DISULFID
DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL
CHAIN
MOD_RES
                                                                                                                                 CAVIA PORCELLUS (GUINEA PIG).
EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; RODENTIA.
                                                                                                                                                                               EOTAXIN PRECURSOR SCYAll.
                                                                                                                                                                                                           01-JUN-1994 (REL.
01-OCT-1996 (REL.
15-JUL-1998 (REL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOURBAGY APPELBAUM E., REAPE T.J., BRAWNER M., MAKWANA J., FOLEY J.J., SCHAIDT D.B., IMBURGIA C., MACULTY D., MAITHEWS J., O'DONNELL O'SHANNESSY D., SCOTT M., GROOT P.H.E., MACPHEE C.; J., BIOL. CHEM. 272:16404-16413(1997).
SEQUENCE FROM N.A. MEDLINE; 95091818.
                                           ROTHENBERG M.E., LUSTER A.D., LILLY C.M., J. EXP. MED. 181:1211-1216(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                         MEDLINE; 95173589.
                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                74 CADPKEKWVQ 83
                                                                                                                                                                                                                                                                                                                                                                                                        Local
                                                                                                                                                                                                                                                                                                                                L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MASS SPECTROMETRY: MM-9314; MM_ERR-30; METHOD-MALDI; RANGE-17-98.
MASS SPECTROMETRY: MM-8760; MM_ERR-30; METHOD-MALDI; RANGE-22-98.
MASS SPECTROMETRY: MM-8575; MM_ERR-30; METHOD-MALDI; RANGE-24-98.
MASS SPECTROMETRY: MM-8575; MM_ERR-30; METHOD-MALDI; RANGE-24-98.
INDUCTION: BY INVERLEUKIN-1 AND TWF-ALPHA.
TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INVESTINE,
THISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INVESTINE,
THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS
SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
THIS PROTEIN CAN BIND HEPARIN.
PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND
(FNUPGILA)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE.
(LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
L; U46767; G1732123; -.
                                                                                                                                                                                                                                                                       CAVPO
                                                                                                                                                                                                                                                                                                                               CADPKQKWVQ 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AC002482; G2340091; -.
                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PS00472; SMALL_CYTOKINES_CC;
                                                                                                                                                                                                                                                                                                                                                                                        9
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AA;
                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                          29, CREATED)
34, LAST SEQUENCE UPDATE)
36, LAST ANNOTATION UPDAT
(EOSINOPHIL CHEMOTACTIC P
                                                                                                                                                                                                                                                                                                                                                                                                                                                   10986
                                                                                                                                                                                                                                                                                                                                                                                                      95.2%;
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Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                               PYRROLIDONE CARBOXYLIC P
BY SIMILARITY.
BY SIMILARITY.
POTENTIAL.
DF52F6EC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MONOCYTE
                                                                                                                                                VERTEBRATA;
                                                                                                                                                                                            NOTATION UPDATE)
CHEMOTACTIC PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GLYCOPROTEIN; INFLAMMATORY RESPONSE
                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                        NO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHEMOTACTIC
                                                                                                                                                                                                                                                                     96
                                                                                                                                                                                                                                                                                                                                                                                                      DB 1; I
4.64e-06;
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                                                                                                                                               TETRAPODA; MAMMALIA;
                                                        DRAZEN J.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                 Length 98;
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                                                         LEDER P.;
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Best Local S
Matches
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
TISSUE-SMALL INTESTINE;
TISSUE-SMALL INTESTINE;
MEDLINE; 96205964.
KITAURA M., NAKAJIMA T., IMAI T., HARADA S.,
TIFFANY H.L., MURPHY P.M., YOSHIE O.;
TATOL. CHEM. 271:7725-7730(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISULFID
DISULFID
CARBOHYD
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SQUENCE UPDATE)
01-NOY-1997 (REL. 35, LAST ANNOTATION UPDATE)
EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EOTA_HUMAN STANDARD;
P51671; P50877; Q92490;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOQBEL R., TOTTY N.F., TRUONG O., HSUAN J.J., WILLIAMS
J. EXP. MED. 179:881-887(1994).
1- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS,
DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS,
FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
1- SUBCELLULAR LOCATION: EXTRACELLULAR.
1- TISSUE SPECIFICITY: LUNG.
1- PIM: O-GLYCOSYLATED (PROBABLE).
1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY ()
                                                                                                                                                                                                                                                                                                SMITH H., SH
MACKAY C.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GARCIA-ZEPEDA E.A.,
LUSTER A.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE OF 24-96.
STRAIN-HARTLEY; TISSUE-LUNG;
MEDLINE; 94157409.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOSE P.J., ADCOCK I.M., GRIFFITHS-JOHNSON D.A., BERKMAN N., WELLS T.C., WILLIAMS T.J., POWER C.A.; BIOCHEM. BIOPHYS. RES. COMMUN. 205:788-794(1994).
                                                                                                                                                                                                                                                                                                                                                             PONATH P.D.,
                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. MEDLINE; 96189937.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. MEDLINE; 96181758.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EUTHERIA; PRIMATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SCYA1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOSE P.J., GRIFFITHS-JOHNSON D.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAT. MED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFLAMMATORY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           72 CADPKKKWVQ 81
                                                                                                                                                                                                                                                                     CLIN.
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L; U18941; G687656; -.
L; X77603; G602552; -.
P; P13500; IMCA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CADPKQKWVQ
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IL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
                                                                                                                                                                                                                                                                     INVEST.
                                                                                                                                                                                                                                                                                                                               SHI X.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2:449-456(1996).
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24 96
31 56
31 72
32 72
93 93
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larity 90.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                    QIN S.,
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                                                                                                                                                                                                                                                                  97:604-612(1996)
                                                                                                                                                                                                                                                                                                                                  GONZALO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                           RINGLER D.J.,
NZALO J.A., NEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q92491;
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BY SIMILARITY.
BY SIMILARITY.
POTENTIAL.
D -> G (IN REF
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Pred. No. 2.39e-05;
0; Mismatches 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               M.E.,
                                                                                                                                                                                                                                                                                                                                  NEWMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HSUAN J.J., WILLIAMS T.J.;
                                                                                                                                                                                                                                                                                                                               CLARK-LEWIS I., WANG J.,
WMAN W., GUTIERREZ-RAMOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (IN REF.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               T.R.,
                                                                                                     COMBADIERE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LEDER
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                                                                                                     c.,
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                                                                                                                                                                                                                                                                                                                                                                    J., KASSAM
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Best Local Similarity
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-!- INDUCTION: BY TNF-ALPHA, IL-1-ALP
-!- SIMILARITY: BELONGS TO THE INTERC
C-C) (CHEMOKINE CC).
EMBL: U46573; G1280141; --
EMBL: U46573; G1185440; --
EMBL: U54780; G1185441; --
EMBL: D49372; G1552241; --
EMBL: Z59291; E221070; --
EMBL: Z75668; E251275; --
EMBL: Z75668; E251275; --
EMBL: Z75669; E251258; --
EMBL: Z75669; E251258; --
EMBL: Z75699; E329504; --
EMBL: Z92709; E329504; --
                                                                                                                                                    P48298;
01-FEB-1996 (REL. 3
01-FEB-1996 (REL. 3
15-JUL-1998 (REL. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
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BARTELS J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GARCIA-ZEPEDA E.A., ROTHEN MORTON C.C., LUSTER A.D.; GENOMICS 41:471-476(1997).
                                                                         MUS MUSCULUS (MOUSE)
EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE-PLACENTA;
MEDLINE; 97312708.
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BARTELS J.,
                                                        EUTHERIA; RODENTIA.
                                                                                                                                    EOTAXIN PRECURSOR
                                                                                                                                                                                                                                     EOTA_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BIOCHEM. BIOPHYS.
  TISSUE-LUNG;
                  SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MIM; 601156;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A., SEQUENCE OF 60-65 AND 75-88, AND VARIANTS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFLAMMATORY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EOSINOPHIL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE;
                                                                                                                                                                                                                                                                                                                                                     73 CADPKKKWVQ 82
                                                                                                                                                                                                                                                                                                                   سر
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUBCELLULAR LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, & FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
                                                                                                                                                                                                                                                        10
                                                                                                                                                                                                                                                                                                              CADPKQKWVQ 10
                                                                                                                                                                                                                                                                                                                                                                                        9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PS00472; SMALL_CYTOKINES_CC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SCHLUETER C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             96374440.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CYTOKINE; (
RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             33
33
33
79
                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SCHROEDER .
                                                                                                                            33, CREATED)
33, LAST SEQUENCE UPDATE)
36, LAST ANNOTATION UPDATE)
(EOSINOPHIL CHEMOTACTIC PRO
                                                                 CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10732 MW;
                                                                                                                                                                                                                                                                                                                                                                                                              91.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ROTHENBERG
A.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ი,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KULKE R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POLYMORPHISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RICHTER E., R J.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EXTRACELLULAR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A -> T (IN CLONE R -> S (IN CLONE K -> R (IN CLONE R -> S (IN CLONE R -> R (IN CLONE R -> R
                                                                                                                                                                                                                                                                                                                                                                                                              Score 77; DB 1;
Pred. No. 2.39e-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EOTAXIN.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IL-1-ALPHA AND INTERFERON GAMMA.
HE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             POTENTIAL.
                                                                           VERTEBRATA;
                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6C0F3D98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          237:537-542(1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  225:1045-1051(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       М.
Е.,
                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHRISTOPHERS E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WEREMOWICZ S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OSON
                                                                                                                                                                                                                                     97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CRC32;
                                                                         TETRAPODA; MAMMALIA;
                                                                                                                                    PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         z.
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53).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SCHROEDER J.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SARAFI M.N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ₽.
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SULT
D EOTA_RAT
D EOTA_RAT
C P975.45; 008780;
C P975.45; 008780;
JT 15-JUL-1998 (REL. 36, CREATED)
DT 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DT EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
OS RATTUS NORVEGICUS (RAT).
OS RATTUS NORVEGICUS (RAT).
OS RATTUS NORVEGICUS (RAT).
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                                                                                                                                                                                                                                                                                                                                                                   RESULT
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISULFID
DISULFID
SEQUENCE
                     SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.

-!- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PRIBECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMIFERATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).

-!- SUBCELLULAR LOCATION: EXTRACELLULAR.
-!- SUBCELLULARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL COC.) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL;
EMBL;
                                                                                                                                                                                            SEQUENCE FROM N.A. WILLIAMS C.M., NEW FLANAGAN B.F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IMMUNITY 4:1-14(1996).

-i- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTE DIRECTLY PROMOTES THE ACCUMULATION OF BOSINOPHILS (A PROMINENT FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE; 96158746.
GONZALO J.-A., JIA G.-Q.,
JENKINS N.A., LIN G.-S.,
GUTIERREZ-RAMOS J.-C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE; 96004658.
ROTHENBERG M.E., I
PROC. NATL. ACAD.
                                                                                                                                                       SEQUENCE FROM
                                                                                                                                                                                 SUBMITTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00472; SMALL_CYTOKINES_CC; EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                             TISSUE-LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFLAMMATORY
                                                                                                                                                                                                                                                                                                                                                                                                                        73 CADPKKKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                         1 CADPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBCELLULAR LOCATION: EXTRACELLULAR.
TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
EXPRESSION INDUCTION: IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL
CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
INDUCTION: BY INTESPERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PTM: O-GLYCOSYLATED (PROBABLE).
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C-C) (CHEMOKINE CC).; U26426; G995911; -.; U40672; G1113937; -. MGI:103576; SCYA11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
          C) (CHEMOKINE CC).
Y08358; E274141; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         h 91.7%;
Similarity 90.0%;
9; Conservative
                                                                                                                                                                                   (DEC-1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESPONSE.
                                                                                                                                                         N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               &
                                                                                                                                                                                                          NEWTON D.J., WILSON S.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JIA G.-Q.,
                                                                                                                                                                                                                                                                                                                                                                                                         10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10893
                                                                                                                                                                                                                                                            CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23
97
57
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                                                                                                                                                                                   EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          , AGUIRRE V.,
KATZ H., LICI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 77; DB 1; I
Pred. No. 2.39e-05;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            POTENTIAL.
EOTAXIN.
BY SIMILARITY.
BY SIMILARITY.
F85A96BC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          H., LICHTMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LEDER P.;
92:8960-8964(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FRIEND D.,
                                                                                                                                                                                                          COLEMAN J.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Α.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COPELAND N.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COYLE A.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                     (SMALL CYTOKINE
                                                                                                    THIS PROTEIN
                                                                                        PROMINENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROTEIN
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Best Local S
Matches
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CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISULFID DISULFID
                                                                                                                                                                                                                              SEQUENCE FROM N.A.

MEDLINE; 93305913.

MINTY A., CHALON P., GUILLEMOT J.C., KAG

MAGAZIN M., MILOUX B., MINTY C., RAMOND

SHIRE D., FERRARA P., CAPUT D.;

EUR. CYTOKINE NETW. 4:99-110(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-DEC-1992 (REL. 24, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE CHEMOTACTIC PROTEIN 3) (NC28).
                             BIOCHEMISTRY 36:4412-4422(1997).
-:- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS CAN BIND HEPARIN.
                                                                                                                                                                                                                                                                                                     OPDENAKKER G., FITEN P., NYS
LAUREYS G., VAN DAMME J.;
GENOMICS 21:403-408(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIGNAL
CHAIN
          -; -;
                                                                                        STRUCTURE BY NMR. MEDLINE; 97263733.
                                                                                                                                 KIM K.-S
                                                                                                                                          STRUCTURE BY NMR, AND SUBUNIT. MEDLINE; 97053697.
                                                                                                                                                                                                                                                                                                                                                                  BIOCHEM. BIOPHYS.
                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A., AND MEDLINE; 93213290.
OPDENAKKER G., FROYEN G.
                                                                                                                                                                                                                                                                                                                                                                                                                     EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                            HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 SCYA7 OR MCP3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P80098;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MCP3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EOSINOPHIL; CYTOKINE; INFLAMMATORY RESPONSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE;
                                                                                                                                                                                    VAN DAMME
                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                MEUNIER S., BERNASSAU J.-M.,
                                                                                                                                                                                                                SEQUENCE OF 30-99
                                                                                                                                                                                                    SSUE - OSTEOSARCOMA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          73 CADPKKKWVQ 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              \mathbf{L}
                     SUBUNIT: MONOMER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
9; Conse
          O-GLYCOSYLATED.
                                                                                                                                                                                            92308855.
                                                                                                                                                                                                                                                                                                                                   94375065
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                                                                                                                                                                      J., PROOST P., LENAERTS J.-P., ED. 176:59-65(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                     PRIMATES
                                                                                                                    RAJARATHNAM K., CI
395:277-282(1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97
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24 97
32 57
33 73
94 94
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larity 90.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     32
32
33
34
34
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YS. RES. COMMUN. 191:535-542(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10851
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Ö
                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MW;
                                                                                                                                CLARK-LEWIS
THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score
Pred.
                                                                             GUILLEMOT J.-C.,
                                                                                                                                                                                                                                                                                                                          G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  POTENTIAL.
L -> S (IN REF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BY SIMILARITY. BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EOTAXIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                            VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            05B4ED45 CRC32
                                                                                                                                                                                                                                                                                                                           FROYEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      77;
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                                                                                                                                                                                                                                                                                                                                                                                                31-67 AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 1; Leny
. 2.39e-05;
. Takes 1;
                                                                                                                                                                                                                                                    KAGHAD M., LIAUZUN P.
OND P., VITA N., LUPKE
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                                                                                                                                                                                OPDENAKKER G.;
                                                                                                                                SYKES
                                                                                                                                                                                                                                                                                                                          VAN
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                                                                             FERRARA P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                71-99
                                                                                                                                                                                                                                                                                                                                                                           VAN DAMME
                                                                                                                                                                                                                                                                                                                          ROY N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIGNAL;
                                                                                                                               W
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                                                                                                                                                                                                                                                      LUPKER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97;
                                                                                                                                                                                                                                                                                                                          SPELEMAN
                                                                                                                                                                                                                                                                                                                                                                            ٦.;
                                                                             DARBON
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                                                   -TUMOR
                                        PROTEIN
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Best Local s
Matches
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Best Local
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EMBL; X72308; G313708; ALT_INIT.

EMBL; X72309; -; NOT_ANNOTATED_CDS.

EMBL; X71087; G288399; -.

EMBL; X71087; G288398; ALT_INIT.

EMBL; X71087; G288397; ALT_INIT.
                                                                                                                                                                                                                                                                                                                                                  MCP2_PIG STANDARD; PRT; YY AA.
PA9873;
01-OCT-1996 (REL. 34, CREATED)
01-CCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-UUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2)
                                                                          DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOD_RES
DISULFID
DISULFID
CARBOHYD
                                                                                                                               CHAIN
                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
MEDLINE; 95091716.
HOSANG K.K., KNOKE I.I., KLAUDINY J.J., WEMPE F.F.,
SCHEIT K.K.;
                                                                                                                                                                                                                                                                                                                          SCYA8 OR MCP2.
SUS SCROFA (PIG).
                                                                                                                                                                          EMBL;
                                                                                                                                                                                             -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY
                                                                                                                                                                                                                                       BIOCHEM. BIOPHYS. RES. COMMUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CYTOKINE;
                                                                                                                     MOD_RES
                                                                                                                                          SIGNAL
                                                                                                                                                    CYTOKINE;
                                                                                                                                                                PROSITE;
                                                                                                                                                                                                                               -!- FUNCTION:
                                                                                                                                                                                                                                                                                                        EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                  EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFLAMMATORY
75 CADPQQKWVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                75 CADPTQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 CADPKQKWVQ 10
                                                                                                                                                                                                                 CAN BIND HEPARIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A54678; A54678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1NCV; 15-OCT-97.
                                                                                                                                                                Z48480; G683719;
IE; PS00472; SMAL
                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PS00472; SMALL_CYTOKINES_CC; : CHEMOTAXIS; HEPARIN-BINDING;
                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                   (CHEMOKINE CC).
                                                                                                                                                    CHEMOTAXIS;
                                                                            99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESPONSE;
                                 Conservative
                                                                           AA;
                                                                                                                  24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \frac{34}{50}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A
                                                                                                                                                                                                                           IYS. RES. COMMUN. 205:148-153(1994).
CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               84
                                                                                                                                       3719;
SMALL_CYTOKINES_CC; 1.
SMALL_CYTOKINES_CC; 1.
STATUTION OF THE PARTITY.
                                        91.7%;
90.0%;
                                                                           10903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11200
                                                                                                                                                                                                                                                                                                                  CHORDATA;
                                                                                       59
75
                                                                                                                    23
99
24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 90.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       299
299
299
30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3D-STRUCTURE
                                                                           WW.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Œ.
                              Score 77;
Pred. No.
0; Misma
                                                                                   BY SIMILARITY.

MONOCYTE CHEMOTACTIC PROTEIN 2.

PYRROLLDONE CARBOXYLIC ACID (BY SIMILARITY).

BY SIMILARITY.

BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 77; DB 1; I
Pred. No. 2.39e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              T -> K (IN REF. 4).
MISSING (IN REF. 4).
7502E19C CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MONOCYTE CHEMOTACTIC PR
PYRROLIDONE CARBOXYLIC
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POTENTIAL
T -> K (I)
                                                                                                                                                                                                                                                                                                                  VERTEBRATA;
                                                                           B7620BCF
                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                         DB 1; I
2.39e-05;
                                                                          CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GLYCOPROTEIN; SIGNAL;
                                                                                                                                                                                                                                                                                                                  TETRAPODA; MAMMALIA;
                                                   Length 99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                    INFLAMMATORY RESPONSE
                                                                                                                                                                                                                                                                                                                                                             (MONOCYTE
                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROTEIN
                                                                                                                                                                                                                                                             WUTTKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99
                                                                                                                                                                                            SIMILARITY).
(SMALL CYTOKINE
                                0
                                                                                                                                                                                                                                                             W.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                Gaps
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CADPKQKWVQ 10

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Best Local S
Matches
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                                                                                                                                                                                                            MI1A_RAT P50229;
                                                                                                                                                                                                                                                                                                                               CARBOHYD
SEQUENCE
                                                                                                                                                                                 01-OCT-1996 (REL. 34,
01-OCT-1996 (REL. 34,
01-NOV-1997 (REL. 35,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOATTRACTANT PROTEIN-1).
                                                                                        STRAIN=CD-1; TISSUE=LUNG; MEDLINE; 95298037. SHI M.M., GODLESKI J.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAVIA PORCELLUS (GUINEA PIG).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MCP1_CAVPO
Q08782;
SEQUENCE OF 24-57
STRAIN-WISTAR;
                                   MEDLINE; 9523
SHANLEY T.P.,
                                          STRAIN-LONG EVANS; TISSUE-LUNG; MEDLINE; 95238980.
                                                                                BIOCHEM. BIOPHYS.
                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                     EUTHERIA;
                                                                                                                                              EUKARYOTA; METAZOA;
                                                                                                                                                        RATTUS NORVEGICUS (RAT).
                                                                                                                                                               MACROPHAGE INFLAMMATORY PROTEIN SCYA3 OR MIP1A.
                                                                                                                                                                                                                                                                                                                                                                          MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                   CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                     CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN=Z; TISSUE=SPLEEN; MEDLINE; 93267104.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SCYA2 OR MCP1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOV-1995 (REL.
                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                             SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -!- FUNCTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YOSHIMURA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                          73
                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IMMUNOL.
                           IMMUNOL.
                                                                                                                                                                                                                              15
                                                                                                                                                                                                                                                        CADPKQKWVQ 10
                                                                                                                                                                                                                                                                          CADPTQKWVQ 82
                                                                                                                                                                                                                                                                                                                                                                                                              L04985; G349821;
E; PS00472; SMAL
                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                     CHEMOTAXIS; SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RODENTIA.
                                                                              GODLESKI J.J., PAULAUSKIS J.D.;
NIOPHYS. RES. COMMUN. 211:289-295(1995)
                                                                                                                                      RODENTIA.
                                                                                                                                                                                                                                                                                                                              33
34
97
120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                150:5025-5032(1993).
N: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES,
                           154:4793-4802(1995)
                                                                                                                                                                                                                                                                                           91.7%;
larity 90.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                         24
                                   SCHMAL H.,
                                                                                                                                                                                                                                                                                                                                AA;
                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                            SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                         23
120
24
                                                                                                                                               CHORDATA;
                                                                                                                                                                                                                                                                                                                                       57
73
97
                                                                                                                                                                                                                                                                                                                                13741
                                                                                                                                                                                CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CREATED)
                                  FRIEDL H.P.,
                                                                                                                                                                                                                                                                                                                                ₹,
                                                                                                                                                                                                                                                                                            Pred.
                                                                                                                                                                                                                                                                                                  Score 77; DB 1; I
Pred. No. 2.39e-05;
                                                                                                                                                                                                                                                                                                                                              PYRROLIDONE CARBOXYLIC SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                  BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN
                                                                                                                                                                                                                                                                                                                               POTENTIAL.
22FAD257 CRC32;
                                                                                                                                             VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERTEBRATA;
                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                    INFLAMMATORY RESPONSE;
                                                                                                                                                                        1-ALPHA
                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                   JONES
                                                                                                                                                                                                                    92
                                                                                                                                                                       PRECURSOR
                                                                                                                                                                                                                     ጅ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TETRAPODA; MAMMALIA;
                                  M.L.,
                                                                                                                                                                                                                                                                                                            Length 120;
                                   WARD P.A.;
                                                                                                                                                                        (MIP-1-ALPHA).
                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                          ACID
                                                                                                                                                                                                                                                                                                                                                                                                     GLYCOPROTEIN.
                                                                                                                                                                                                                                                                                                                                                                          (BY
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Best Local S
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ILT 16
IL8_CANFA
P41324;
01-FEB-1995
01-FEB-1995
01-NOV-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHAIN
DISULFID
DISULFID
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE; 96183056.

MAKAGAWA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;

BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).

-1- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.

HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, REUTROPHILS, EOSINOPHILS,

BASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LUNG THY-ALPHA

PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND

MAY FUNCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE

PRODUCTION OF TWE-ALPHA WHICH IN TURN UP-REGULATES VASCULAR

ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFLUX. THIS PROTEIN
KURIELKA G.L., SMITH W.C., LAROSA G.J., MANNING A.M.,
MENDOZA L.H., DALY T.J., HUGHES B.J., YOUKER K.A., HAWKINS H.K.,
MENDOZA L.H., ROT A., ENTMAN M.L.;
J. CLIN. ILVEST, 95:89-103(1994).
-i- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
-i- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
BESPONSE TO AN INFLAMMATORY STIMULUS.
-i- SUBUNIT: HOMODIMER.
-i- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                     MATSUMOTO Y., MOHAMED A., ONODERA T., KATO H., OHASHI T.,
GOITSUKA R., TSUJIMOTO H., HASEGAWA A., FURUSAWA S., YOSHIHARA K.,
ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.;
CYTOKINE 6:455-461(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE-LYMPH NODE;
MEDLINE; 95127913.
MATSUMOTO Y., MOHA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
MEDLINE; 94010328.
ISHIKAWA J., SUZUKI S.,
GENE 131:305-306(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -!- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY
C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                STRAIN-MONGREL; TISSUE-JUGULAR VEIN;
MEDLINE; 95114148.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EUTHERIA; CARNIVORA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CANIS FAMILIARIS (DOG)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL;
                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INTERLEUKIN-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          73 CADPKETWVQ 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CADPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        U22414; G790633; -
U06435; G459150; -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PS00472; SMALL_CYTOKINES_CC; 1.; CHEMOTAXIS; INFLAMMATORY RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6 (REL. 31, CRI
6 (REL. 31, LAS
6 (REL. 32, LAS
4-8 PRECURSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 34
35
57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31, CREATED)
31, LAST SEQUENCE UPDATE)
32, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23
92
57
73
6
57
10335
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CHORDATA;
     TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HOTTA K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (IL-8).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WW.
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Pred.
1; M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA. BY SIMILARITY.
BY SIMILARITY.
A -> T (IN REF. 2).
C -> W (IN REF. 2 AND 3).
F48CF89F CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HIROTA Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  73; DB 1; I
No. 2.03e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MIZUNO S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HEPARIN-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUZUKI K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
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                                                                                  Matches
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DISULFID
CONFLICT
                                                                                                                                                                                                                                                                                                                  -!- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
-!- SUBBUNIT: HOMODIMER.
-!- SIMBUNIT: HOMODIMER.
-!- SIMBURIARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXC).
EMBL; M57439; G165553; -.
PIR: S13052; S13052.
HSSP; P10145; 3118.
PROSITE: P$00471; SMALL_CYTOKINES_CXC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-NEW ZEALAND WHITE; TISSUE-PERITONEAL CAVITY; MEDLINE; 91058818.
BEAUBIEN B.C., COLLINS P.D., JOSE P.J., TOTTY N.F., WATERFIELD M.D., WILLIAMS T.J.; BIOCHEM. J. 271:797-801(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IT 17

17

18

1919874;

1919874;

101-FEB-1991 (REL. 17, CREATED)

01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)

01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)

INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT/ACTIVATION
PROTEIN-1) (NAP-1) (PERMEABILITY FACTOR 1) (RPF1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHAIN
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MEDLINE; 91225489.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1. CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; D28772; G517100; -...
EMBL; D14285; G475152; -...
EMBL; U10308; G607814; -...
PROSITE; PS00471; SMALL_C)
                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                         CHAIN
                                                                                                                                                                                                                                                                             SIGNAL
                                                                                                                                                                                                                                                                                                 CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORYCTOLAGUS CUNICULUS (RABBIT).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YOSHIMURA T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EUTHERIA; LAGOMORPHA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
                                          77 CLDPKEKWVQ 86
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CADPKQKWVQ 10
                                                                             . Similarity
8; Conser
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                                                                                                                                                                                                                                                                                                 CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZEALAND WHITE;
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146:3483-3488(1991).
                                                                                86.9%;
larity 80.0%;
Conservative
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Pred.
                                                                                                    Score 73; DB 1;
Pred. No. 2.03e-04
                                                                                                                                                                                 INTERLEUKIN-8.
BY SIMILARITY.
BY SIMILARITY.
K -> I (IN REF.
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BY SIMILARITY.
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CB32CC30 CRC32;
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                                                                                Mismatches
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No. 2.03e-04;
                                                                                                                                                                                                                                                                                            CXC; 1.
RESPONSE;
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                                                                                                                                                                                                                                                                                              SIGNAL
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                                                                                                                     Length 101;
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Best Local S
Matches
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HSSP; P10145; 3ILB.
PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
PROSITE SMALL STATEMENT SMALL STATEMENT SMALL STATEMENT SMALL SM
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IL8_SHEEP
P36925;
01-JUN-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IL8_PIG STANDARD; PRT; 103 AA. P26894; P22951; 01-AUG-1991 (REL. 19, CREATED) 01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE) 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE) INTERLEUKIN-8 PRECURSOR (IL-8) (ALVEOLAR MACRITALEUKIN-8 PRECURSOR (IL-8)
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EUKARYOTA; I
SUBMITTED
                                                                                                                                               SEQUENCE FROM N.A.
MEDLINE; 94103307.
LIN G., PEARSON A.E., SCAMURRA R.W.,
WEISS D.J., MURTAUGH M.P.;
J. BIOL. CHEM. 269:77-85(1994).
                                                          SEQUENCE FROM N.A. SANJANWALA M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -!- SUBUNIT: HOMODIMER.
-!- SUBUNIT: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).

EMBL; X78306; G463254; -.

EMBL; X78436; G786591; -.

EMBL; S74436; G786591; -.

PIR; S42496; S42496.

HSSP; P10145; 3118.
                                                                                                                                                                                                                                                                                                                                                                SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEOW H.F., YOSHIMURA T., WOOD P.R., COLDITZ I.G.;
IMMUNOL. CELL BIOL. 72:398-405(1994).
1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
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01-NOV-1995
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                                                                                                                                                                                                                                                                                                                                             EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
MEDLINE; 95137691.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (AMCF-I).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CADPKQKWVQ
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                             (JUL-1991)
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36
101 AA;
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METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (REL.
(REL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRECURSOR (IL-8) (ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRECURSOR
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29, LAST SEQUENCE UPDATE)
32, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22
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61
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                             ö
                          EMBL/GENBANK/DDBJ DATA BANKS
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Pred. No. 2.
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BY SIMILARITY.
; 5A574527 CRC32;
                                                                                                                                                                                                                                                                                                                                                                          VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ARNAUD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        re 73; DB 1; Ltd. No. 2.03e-04; Mismatches 1;
                                                                                                                                                                                                                 ZHOU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ₽.,
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                                                                                                                                                                                                             Υ.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIGNAL
                                                                                                                                                                                                                 BAARSCH M.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 101;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
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L.J. BIOL. CHEM. 266:8455-8463(1991).
CHEM. 266:8456-8463(1991).
CHEM. 266:8466-8463(1991).
CHEM. 266:8466-8463(1991).
CHEM. 266:8466-8463(1991).
CHEM. 266:8466-8463(1991).
CHEM. 266:8466-8463(1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CYTOKINE;
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
DISULFID
CONFLICT
CONFLICT
SARAFI M.N.,
LUSTER A.D.;
                                                                                                                                   JIA G.-Q., GONZALO J.A., LLOYD C., WERSHIL B.K., GUTIERREZ-RAMOS J.C.; J. EXP. MED. 184:1939-1951(1996).
                                                                                                                                                                                                                                                                                                MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE; 93041741
GOODMAN R.B., FOSTER D.C., MATHEWES
FORSTROM J.W., MARTIN T.R.;
BIOCHEMISTRY 31:10483-10490(1992).
                                                      SEQUENCE FROM N.A. MEDLINE; 97149438.
                                                                                                                                                                                                                   SEQUENCE FROM N.A. MEDLINE; 97079149.
                                                                                                                                                                                                                                                                                                                                                                                   CHEMOKINE).
SCYA12 OR MCP5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q62401;
01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                         MONOCYTE CHEMOTACTIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-NOV-1997
15-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MCP5_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF 26-45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUBMITTED
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.,
TISSUE=LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE;
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A44253; A44253.
; A39819; A39819.
p; P10145; 3ILB.
PSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
SITE; PS00471; SMALL_CYTOKINES_CXC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   h 86.9%;
Similarity 80.0%;
8; Conservative
                                                   97149438
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                      GARCIA-ZEPEDA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   35, CREATED)
35, LAST SEQUENCE UPDATE)
36, LAST ANNOTATION UPDATE)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MW;
                      E.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BY SIMILARITY.
BY SIMILARITY.
RC -> CR (IN REF. 5).
K -> KK (IN REF. 2).
W; A012D59D CRC32;
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1; M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 73; DB 1; L
Pred. No. 2.03e-04;
                                                                                                                                                                                                                                                                                                                                VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                      PRECURSOR (MCP-5) (MCP-1 RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                .
.
                         MACLEAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                         KREMER L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
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                      J.A.,
                                                                                                                                                                                                                                                                                                                                  TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OSBORN S.G., KUIJPER J.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIGNAL
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                                                                                                                                                                                         F
                         CHARO
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                                                                                                                                                                                                                                                                                                                                MAMMALIA;
                                                                                                                                                                                         MARTINEZ A.C.,
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              J. EXP. MED. 185:99-109(1997).

-i- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES, AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A PIVOTAL ROLE DURING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION.

-i- SUBUNIT: HOMODIMER (BY SIMILARITY).

-i- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND THYMUS. ALSO FOUND IN THE SALLYARY GLANDS CONTAINING LYMPH NODES, BREALST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.

-i- INDUCTION: BY IFN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MIP4_HUMAN
P55774;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                  01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANOTATION UPDATE)
15-JUL-1998 (REL. 36, LAST ANOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY ACTIVATED MACROPHAGE CHEMOKINE) (CC CHEMOKINE PARC) (ALTERNATIV ACTIVATED MACROPHAGE ASSOCIATED CC CHEMOKINE 1) (AMAC-1).
SCYA18 OR MIP4.
          WELLS T.N.C., PEITSCH M.C.;

J. LEUKOC. BIOL. 61:545-550(1997).

-i- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LY

-i- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LY

MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN

INTO B CELL FOLLICLES IN LYMPH NODES.

-i- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS

LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES
                                                                                                                                                                                                              TISSUE-AORTA, AND LUNG;
MEDLINE; 97376836.
HIESHIMA K., IMAI T., BABA M., SHOUDAI
NAKAGAWA T., TSURUTA J., TAKEYA M., SAR
MIURA R., OPDENAKKER G., VAN DAMME J.,
J. IMMUNOL. 159:1140-1149(1997).
                                                                                                                DISCUSSION OF SEQUENCE. MEDLINE; 97275308.
                                                                                                                                                        KODELJA V., MUELLER C., SUBMITTED (AUG-1997) TO
                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                     HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MGD; MGI:108224; SCYA12.
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                  PATENT NUMBER US5504003
                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                         EUTHERIA; PRIMATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          74 CADPKEKWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -C) (CHEMOKINE CC).
U50712; G1477582; -.
U66670; G1881583; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.

1 22 BY SIMILARITY.

23 104 MONOCYTE CHEMOTACTIC PF.

33 58 BY SIMILARITY.

34 74 BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          104 AA;
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104
58
74
11659
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                                                                                                                                                                                                                                                                                                     AND PARTIAL SEQUENCE
                                                                                                                                                        POLITZ O., HAKIY N
EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 73; DB 1; I
Pred. No. 2.03e-04;
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                                                                                                                                                                                                                                                                                                                                                                                                     VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08FA6C35 CRC32;
                                                                                                                                                                                                                            SHOUDAI K., ISHIZUKA K.,
A M., SAKAKI Y., TAKATSUKI K.
AMME J., YOSHIE O., NOMIYAMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                       HAKIY N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   89
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                                                                                                                                                        N., ORFANOS C.E.,
DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 104
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                                                     IN B CELL MI
                                                                                                                                                                                                                                                                                                                                                                                                                                               ARC) (ALTERNATIVE (AMAC-1).
                            IN THE LUNG. A LOWER
             SUCH
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             AS
             LYMPH NODES
                                                       MIGRATION
                                                                    BUT
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                                                                                                                                                                         GOERDT
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EMBL; ABO00221; D1022520; -.

EMBL; Y13710; E321838; -.

PROSITE; PS00472; SMAIT

CYTOKINE; CHEMOTIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                 MEDLINE: 97053697.

KIM K.-S., RAJARATINAM K., CLARK-LEWIS I., SYKES B.D.;

FEBS LETT. 395:277-282(1996).

-i- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,

BASOPHILS AND EOSINOPHILS. MAY PLAY A ROLE IN NEOPLASTA AND

INFLAMMATORY HOST RESPONSES. THIS PROTEIN CAN BIND HEPARIN.

-i- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.

-i- TISSUE SPECIFICITY: HIGHEST EXPRESSION FOUND IN THE SMALL

INTESTINE AND PERIPHERAL BLOOD CELLS. INTERMEDIATE LEVELS SEEN IN

THE HEART, PLACENTA, LUNG, SKELETAL MUSCLE, THYMUS, COLON, OVARY,

SPINAL CORD AND PANCREAS. LOW, LEVELS SEEN IN THE BRAIN, LIVER,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P80075; P78388;
01-DEC-1992 (REL. 24, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE CHEMOATTRACTANT PROTEIN 2) (HC14).
SCYAB OR SCYALO OR MCP2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHAIN
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; Y13710; E321838; -.
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE;
  :
                                                                                                                                                                                                                                                                                                                        VAN
                                                                                                                                                                                                                                                                                                                                     VAN
                                                                                                                                                                                                                                                                                                                                                                                          VAN COILLIE E., FITEN P., N
VAN DAMME J., OPDENAKKER G.
GENOMICS 40:323-331(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A., AND VARIANT GLN-69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MCP2_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                       SUBUNIT.
                                                                                                                                                                                                    MEDLINE;
                                                                                                                                                                                                               TISSUE=OSTEOSARCOMA;
                                                                                                                                                                                                                             SEQUENCE OF 26-99
                                                                                                                                                                                                                                                              CHANG
                                                                                                                                                                                                                                                                         MEDLINE;
                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                           BIOCHEM. BIOPHYS.
                                                                                                                                                                                                                                                                                                                                                         TISSUE-BONE MARROW;
                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.,
                                                                                                                                                                                          VAN DAMME
                                                                                                                                                                                                                                                                                                                                               MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             70 CADPNKKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                              EXP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 CADPKQKWVQ 10
                                                                                                                                                                                                                                                                                                         COILLIE E., FROYEN F., NOMIYAMA H., MIURA R., AELST I., VAN DAMME J., OPDENAKKER G.; CHEM. BIOPHYS. RES. COMMUN. 231:726-730(1997).
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 INDUCTION: BY INTERFERON GAMMA, MITOGENS AND INTERLEUKIN-1
              SPLEEN AND PROSTATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SAPIENS (HUMAN)
                                                                                                                                                                                                                                                 IMMUNOL.
                                                                                                                                                                                                                                                               H.C.,
                                                                                                                                                                           ; 92308855.
ME J., PROOST P., LENAERTS
MED. 176:59-65(1992).
                                                                                                                                                                                                                                                                        91207938.
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                                                                                                                                                                                                                                                 1:388-399(1989).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         79
                                                                                                                                                                                                                                                                                    FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          84.5%;
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                                                                                                                                                                                                                                                           FREEMAN G.J.,
                                                                                                                                                                                                                                                                                                                                                                    AND
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70
                                                                                                                                                                                                                                                                                                                                                                      VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                  NOMIYAMA H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred.
1; 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MACROPHAGE INFLAMMATORY PROTEIN BY SIMILARITY.
BY SIMILARITY.
052aA3DC CRC32;
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INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                     GLN-69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                        J.-P.,
                                                                                                                                                                                                                                                           GRIFFIN J.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          No. 5.81e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                  SAKAKI Y.,
                                                                                                                                                                                                                                                                                                                                 MIURA R.,
                                                                                                                                                                                         OPDENAKKER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
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                                                                                                                                                                                                                                                           REINHERZ E.L.;
                                                                                                                                                                                                                                                                                                                                 FITEN
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Best Local S
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ILT 24
IL8_CAVPO
P49113;
01-FEB-1996
01-FEB-1996
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CAMPOS M., BABIUK L.A.;
MICROB. PATHOG. 20:203-212(1996).

-i- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
-i- FUNCTION: IT S ALSO INVOLVED IN
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).

-i- SUBUNIT: HOMODIMER (BY SIMILARITY).

-i- SUBUNIT: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IL8.
BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOD_RES
DISULFID
DISULFID
VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IL8_BOVIN STANDARD; PRT; 101 AA. P79255; 01-NOV-1997 (REL. 35, CREATED) 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE) 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE) INTERLEUKIN-8 PRECURSOR (IL-8).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; X99886; E279930;
EMBL; Y10802; E294088;
HSSP; P13500; 1MCA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MIM; 602283; -.
PROSITE; PS00472; SMALL_CYTOKINES_CC;
CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        POLYMORPHISM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                 77 CLNPKEKWVQ 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             75 CADPKERWYR 84
                                                                                                                                                                                                                       1 CADPKOKWVO 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CADPKQKWVQ 10
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                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PS00471; SMALL_CYTOKINES_CXC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    96304552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHEMOTAXIS;
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34
36
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llarity 70.0%;
Conservative
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34
69
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75
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2 BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WW;
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Pred. No. 5.81e-04
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROBABLE.

MONOCYTE CHEMOTACTIC PRO
PYRROLIDONE CARBOXYLIC &
BY SIMILARITY.

BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                       Score 70; DB 1;
Pred. No. 9.79e-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BY SIMILARITY.
BY SIMILARITY.
0E39C526 CRC32;
                                                                                                                                                                                                                                                                                                                                              2
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HEPARIN-BINDING; INFLAMMATORY RESPONSE;
                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIGNAL
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(REL. 33, CREATED)
(REL. 33, LAST SEQUENCE UPDATE)

STANDARD;

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DISULFID
SEQUENCE
                                                                                                                                                                                         PROOST P., WUYTS A., LENAERTS J.-P., VAN DAMME J.;
BIOCHEMISTRY 33:13406-13412(1994).

-i- FUNCTION: CHEMOTACTIC PACTOR THAT ATTRACTS MONOCYTES, BUT N
NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. ALSO IN
THE RELEASE OF GELATINASE B. THIS PROTEIN CAN BIND HEPARIN.
                                                                                                                                                                                                                                                                                                                                             01-FEB-1995 (REL. 31, CREATED)
01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1B (MCP-1B) (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                  MCPB_BO
P80343;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YOSHIMURA T., JOHNSON D.G.;
J. IMMUNOL. 151:6225-6236(193).
-:- FUNCTION: IL-8 A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
-:- FUNCTION: IT-8 A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAVIA PORCELLUS (GUINEA PIG).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                   SEQUENCE
                                                                                                                                                                          <del>+</del> +
                                                                                                                                                                                                                                                                           TISSUE-KIDNEY;
                                                                                                                                                                                                                                                                                                                    BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL;
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                                                                                                                                                                                                                                                              MEDLINE; 95034774.
                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                               EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
                                                                                                                          NON_TER
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                                 Local Similarity nes 7; Conser
          50 CAEPKXXWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        77 CLDPKKKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CADPKQKWVQ 10
                                                                                                                                                                    PTM: THE N-TERMINAL IS BLOCKED.
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBUNIT: HOMODIMER (BY SIMILARITY).
SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                               BOVIN
L04986;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4980; G459/65; -.
PS00471; SWALL_CYTOKINES_CXC; 1.
; CHEMOTAXIS; INFLAMMATORY RESPONSE;
; CHEMOTAXIS; BY SIMILARITY.
                                                                                                                                                (CHEMOKINE PS00472; SM
                                                                                                                                   (CHEMOKINE CC).
PS00472; SMALL_CYTOKINES_CC;
CHEMOTAXIS; HEPARIN-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (CHEMOKINE CXC).
36; G459765; -.
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                                   82.1%;
larity 70.0%;
Conservative
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.larity 80.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AA;
                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
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                                                                                    MW:
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                                 Score 69;
Pred. No. 1
1; Mismat
                                                                                 BY SIMILARITY.
BY SIMILARITY.
66172F08 CRC32
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Pred. No. 9.79e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BY SIMILARITY.
BY SIMILARITY.
: E13FB521 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
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                                   Mismatches
                                            DB 1; L
1.64e-03;
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                                                                                 CRC32;
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                                                         Length 74;
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Best Local S
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ROLLINS B.J., MORRI
PROC. NATL. ACAD. (
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DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KAWAHARA R.S.,
J. BIOL. CHEM.
[2]
P40224;
01-FEB-1995 (REL. 31, CREATED)
01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
01-FOB-1997 (REL. 35, LAST ANNOTATION UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH
STIMULATING FACTOR) (PBSF) (12-O-TETRADECANOYLPHORBOL 13-ACETATE
REPRESSED PROTEIN 1) (TPAR1) (THYMIC LYMPHOMA CELL STIMULATING FACTOR)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MCP1_MOUSE STANDARD; PRT; 148 AA. p10148; 01-MAR-1989 (REL. 10, CREATED) 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE) 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE) MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCPGROWNH FACTOR-INDUCIBLE PROTEIN JE).
                                                                                   SDF1_MOUSE
                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                            SIGNAL
                                                                                                                                                                                                                                                                                                                                                                    PIR; A30209; A30209.
PIR; A30861; A30861.
PIR; S16226; S16226.
                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; J04467; G387169; -. EMBL; M19681; G387168; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VAN DAMME J., DECOCK B., BERTINI R., CONINGS R. PUT W., OPDENAKKER G., MANTOVANI A.; EUR. J. BIOCHEM. 199:223-229(1991).
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE; 9129:
VAN DAMME J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. MEDLINE; 89093129.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SCYA2 OR MCP1 OR JE.
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; (
                                                                                                                                                                                                                                                                                    MOD_RES
                                                                                                                                                                                                                                                                                                  CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                       -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-!- INDUCTION: BY PLATELET-DERIVED GROWTH FACTOR.
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE OF 26-42.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. MEDLINE; 88234501.
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                                                                                                                                                                                                                                                                                                                        CYTOKINE;
                                                                                                                                                                                                                                                                                                                                             HSSP; P13500; 1MCA.
MGD; MGI:98259; SCYA2.
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                                                                                                                                   CADPKQKWVQ
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                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                         PS00472; SMALL_CYTOKINES_CC; 1.
;; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE;
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  91293127.
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126
148
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Conservative
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CAD. SCI.
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264:679-682(1989).
                                                                                     STANDARD;
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Pred. No. 1.64e-03;
0; Mismatches
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. 85:3738-3742(1988).
                                                                                                                                                                                                                                                 BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                           PYRROLIDONE CARBOXYLIC SIMILARITY).
                                                                                                                                                                                                                            POTENTIAL.
B7572BBC CRC32;
                                                                                                                                                                                                                                                                                                 MONOCYTE CHEMOTACTIC
                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRECURSOR (MCP-1) (PLATELET-DERIVED
                                                                                     89
                                                                                   A
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                                                                                                                                                                                                   Length 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENAERTS J.-P.,
                                                                                                                                                                               Indels
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                                                                                                                                                                                                                                                                                                                        GLYCOPROTEIN
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                                                                                                                                                                                                                                                                                    (BY
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RESULT
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Best Local S
Matches
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DISULFID
VARSPLIC
                                                                                                               SDF1_HUMAN STANDARD; PRT; 93 AA. P48061; 01-FEB-1996 (REL. 33, CREATED) 01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE) 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE) STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -!- FUNCTION: STIMULATES THE PROLIFERATION OF BONE MARROW-DERIVED B
PROCENITOR CELLS IN THE PRESENCE OF IL-7 AS WELL AS GROWTH OF THE
STROMAL CELL-DEPENDENT B-CELL CLONE DW34 CELLS.
-!- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE
PROBABLY GENERATED BY ALTERNATIVE SPLICING.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXC).
EMBL; D21072; G466457; --
EMBL; L12030; G393180; --
EMBL; L12030; G393180; --
EMBL; S74318; G786394; --
EMBL; D43804; G1304174; --
EMBL; D43805; G1304175; --
EMBL; D43805; G1304175; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CYTOKINE;
SIGNAL
CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE: 9507349/.
JIANG W., ZHOU P., KAHN S.M., TOMI
WEINSTEIN I.B.;
EXP. CELL RES. 215:284-293(1994).
EUKARYOTA; METAZOA;
EUTHERIA; PRIMATES.
                                                                                                STIMULATING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NOMURA M., NAKATA Y., UZAWA A., NOSE M., AKASHI M., SUZUKI G.;
SUBMITTED (DEC-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- EUNCTION: CHEMOATTRACTANT ACTIVE ON T-LYMPHOCYTES, MONOCYTES,
NOT NEUTROPHILS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
MEDLINE; 93342488.
TASHIRO K., TADA H., HEILKER R.,
SCIENCE 261:600-603(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EUKARYOTA;
EUTHERIA; F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PIR; A53497;
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                                                HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAGASAWA T., KIKUTANI
PROC. NATL. ACAD. SCI
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
les 7; Conse
                                                                                                                                                                                                                                                                                                                                                                                            71 CIDPKLKWIQ 80
                                                                                                                                                                                                                                                                                                                                                1 CADPKQKWVQ 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MGI:103556; SDF1.
SITE; PS00471; SMALL_CYTOKINES_CXC; FALSE_NEG.
DKINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTH
POTENTIAL.
1 19 POTENTIAL.
1 19 STROMAL CELL-DERIVEI
ULFID 30 55 BY SIMILARITY.
ULFID 32 71 BY SIMILARITY.
SPLIC 89 89 K-> KRLKM (IN FORM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              89
                              METAZOA; CHORDATA;
                                                                                                FACTOR)
                                                                                                                                                                                                                                                                                                                                                                                                                                              79.8%;
larity 70.0%;
Conservative
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                                                                                                  (PBSF).
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. U.S.A. 91:2305-2309(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BY SIMILARITY.
BY SIMILARITY.
K --> KRIKM (IN FORM BETA).
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STROMAL CELL-DERIVED FACTOR
                           VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOMITA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  67; DB 1;
No. 4.57e-03
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CRC32;
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                           TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAKANO
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                                                                                                                         (PRE-B
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                           MAMMALIA;
                                                                                                                         CELL GROWTH
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Best Local S
Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
DISULFID
SEQUENCE
HIESHIMA K., IMAI T., OPDENAKKER G., VAN DAMME J., KUSUDA J.,
TEI H., SAKAKI Y., TAKATSUKI K., MIURA R., YOSHIE O., NOMIYAMA
J. BIOL. CHEM. 272:5846-5853(1997).
-i- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LYMPHOCYTES AND,
SLIGHTLY, NEUTROPHILS, BUT NOT MONOCYTES.
-i- TISSUE SPECIFICITY: EXPRESSED PREDOMINANTLY IN THE LIVER, L
                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
MEDLINE; 97166046.
ROSSI D.L., VICARI A.P., FRANZ.
J. IMMUNOL. 158:1033-1036(1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; U16752; G571508; -.

EMBL; L36033; G1220366; -.

PDB; 1SDF; 28-JAN-98.

PDB; 2SDF; 17-JUN-98.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AND ACTIVATION-REGULATED CHEMOKINE) SCYA20 OR MIP3A OR LARC. HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CRUMP M.P., GONG J.H., ARENZANA-SEISDEDOS F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE; 96039262.
SHIROZU M., NAKANO T.,
SHINOHARA T., HONJO T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        [1]
SEQUENCE FROM N.A.
SPOTILA L.D.;
                                                                                                                                                                                                   MEDLINE;
                                                                                                                                                                                                                                    TISSUE-LIVER;
                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBO J. 16:6996-7007(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLARK-LEWIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRUCTURE BY NMR OF 22-88.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENOMICS 28:495-500(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUBMITTED (OCT-1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -!- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     71 CIDPKLKWIQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity 70.0% ies 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>سر</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROBABLY GENERATED BY ALTERNATIVE SIMILARITY: BELONGS TO THE INTERCH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FUNCTION: CHEMOATTRACTANT ACTIVE ON T-LYMPHOCYTES, MONOCYTES, NOT NEUTROPHILS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CADPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PS00471; SMALL_CYTOKINES_CXC; FALSE_NEG.; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE
                                                                                                                                                                                            97190319.
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71
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INAZAWA
                                                                                                                                                                                                                                                              PARTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL/GENBANK/DDBJ DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ž
                                                                                                                                                                                                                                                                                                                                                           FRANZ-BACON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 67;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          POTENTIAL.
STROMAL CELL-DERIVED FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4B9911C7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
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                                                                                                                                                                                                                                                                                                                                                           ⊼∵
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RAJARATHNAM K., AN
L., BAGGIOLINI M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4.57e-03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CRC32;
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                                                                                                                                                                                                                                                                                                                                                              MCCLANAHAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TETRAPODA; MAMMALIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (MIP-3-ALPHA)
LARC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                           T.K.,
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., SYKES B.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SPLICING
                                                                                                                                                                                                                                                                                                                                                              ZLOTNIK A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (LIVER
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REPORT OF STREET OF STREET
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P10145;

01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)

01-MAR-1989 (REL. 36, LAST ANNOTATION UPDATE)

15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)

1STERLEUKIN-8 PRECURSOR (IL-8) (MONOCYTE-DERIVED NEUTROPHIL-
CHEMOTACTIC FACTOR) (MDNCF) (T-CELL CHEMOTACTIC FACTOR) (NEUTROPHIL-
ACTIVATING PROTEIN 1) (MAP-1) (LYMPHOCYTE-DERIVED NEUTROPHIL-
ACTIVATING FACTOR) (LYMAP) (PROTEIN 3-10C) (NEUTROPHIL-ACTIVATING
ACTIVATING FACTOR) (LYMAP) (PROTEIN 3-10C) (NEUTROPHIL-ACTIVATING
(GRANULOCYTE CHEMOTACTIC PROTEIN 1) (GCP-1) (EMOCTAKIN).
                                                      SEQUENCE OF
MEDLINE; 892
GOLDS E.E.,
BIOCHEM. J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CHAIN
DISULFID
DISULFID
SEQUENCE
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SEQUENCE;
                                                                                                                                                                                                                                                                                                                      MEDLINE: 89313739.

MEDLINE: 89313739.

KOWALSKI J., DENHARDT D.T.;

MOT. CELL. BIOL. 9:1946-1957(1989).
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                                                                                                                                                           SUBMITTED
                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE; 87224164.
SCHMID J., WEISSMANN C.;
J. IMMUNOL. 139:250-256(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MATSUSHIMA K., MORISHITA K., YOSH
LEW W., APPELLA E., KUNG H., LEON
J. EXP. MED. 167:1883-1893(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EUKARYOTA;
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                                                                                                                                                                                                                                                        MUKAIDA N.,
                                                                                                                                                                               ISHIKAWA
                                                                                                                                                                                                                                                                            MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 74 CANPKOTWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY: BELONGS C-C) (CHEMOKINE CC).
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D86955; G1871139;
TE; PS00472; SMALL_
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  OF 23-54.
89279141.
                                                                                                                                                                                                                                                                            89309826.
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A; METAZOA; C
PRIMATES.
                                                                                                89246368
                                                                                                                  OF 23-46.
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                                                                                                                                                       (JAN-1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    96
                                                                                                                                                                                                                                 SHIROO M., MATSUSHIMA
143:1366-1371(1989).
                                                        MASON P., NYIRKOS
259:585-588(1989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           32
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SMALL_CYTOKINES_CC; 1.
xis; inflammatory response;
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96
58
74
10762
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77.8%;
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                                                                                                                                                       EMBL/GENBANK/DDBJ DATA BANKS
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1; N
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LEONARD E.
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BY SIMILARITY.
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                                                                          P .;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            67; DB 1;
No. 4.57e-03
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOW LEVELS SEEN IN THYMUS, COLON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LAVU S., K
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SEQUENCE OF 28-99.
MEDLINE; 88162914.
GREGORY H., YOUNG
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CLORE G.M.,
BAGGIOLINI M., CLARK-LEWIS I.;
FEBS LETT. 307:97-101(1992).
-i- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
-i- SUBUNIT: HOMODIMER.
-i- SUBUNIT: HOMODIMER.
-i- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXC).
EMBL; Y00787; G34519; -.
EMBL; M17017; G179580; -.
EMBL; M26383; G188628; -.
                                                                                                                                                                                                                                                                             WEDLIAM, KADELLE, WILLEMS J., BILLING A.; WILLEMS J., BILLING A.; WILLEMS J., 20:2113-2118(1990).
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MEDLINE; 88097462.
YOSHIMURA T., MATSUSHIMA K.,
OPPENHEIM J.J., LEONARD E.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUZUKI K., MIYASAKA H., MIZUNO S.;
                                                                                                                                                                                         MEDLINE; 9117576
CLARK-LEWIS I.,
                                                                                                                                                                                                                                     W-TERMINAL FORMS.
MEDLINE; 89231715.
VAN BEEUMEN J., CONINGS
VAN DAMME J., VAN BEEUMEN J., CONINGS
EUR. J. BIOCHEM. 181:337-344(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE; 90216714. BALDWIN E.T., FRANK WLODAWER A., WEBER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLORE G.M., APPELLA E., YAMADA M., BIOCHEMISTRY 29:1689-1696(1990).
                                                                                                                                                                                                                                                                                                                            MEDLINE;
                                                                                                                                                                                                                                                                                                                                                             BALDWIN E.T., WEBER I.T., ST CHARLES R., XUAN J.C., YAMADA M., MATSUSHIMA K., EDWARDS B.F., CLORE G.M., PROC. NATL. ACAD. SCI. U.S.A. 88:502-506(1991).
                                                                                                                                                                                                                                                                                                                                                                                  BALDWIN E.T., WEBER I.T.,
                                                                                                                                                                                                                                                                                                                                                                                             X-RAY CRYSTALLOGRAPHY (1.6 ANGSTROMS), MEDLINE; 91110556.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              X-RAY CRYSTALLOGRAPHY, AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE;
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                                                                                                                                      MEDLINE; 92347562.
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. BIOPHYS. RES.
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L. 217:611-620(1991).
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2S. COMMUN. 149:755-761(1987).
                                                                                                                                                                                           В.,
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DR PIR; D14283; G219916; -.

PR PIR; A37034; A37034.

PR PIR; S03975; S03975.

PR PIR; S04216; S04216.

PR PDB; 11L8; 15-JAN-91.

PDB; 11L8; 15-JAN-91.

PDB; 11L8; 15-OCT-95.

PDB; 11KM; 15-OCT-95.

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ONE OR MORE OF THESE RESIDUES ARE MISSING IN SOME MATURE FORMS OF IL-8.
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C EVERATYOTA; ME
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RA ZLOTNIK A., 1]
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MUS MUSCULUS (MOUSE).

EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;

EUKARYOTA; METAZOA; CHORDATA; MUS.
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EUKARYOTA; METAZOA; CHORDATA; VI
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STRAIN-BALB/C; TISSUE-BRAIN;
STRAIN-BALB/C; TISSUE-BRAIN;
ROSSI D., HARDIMAN G., COPELAND N., GILBERT D.J
ZLOTNIK A., BAZAN J.F.;
SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA
EMBL; 092565; G2459677; -.
PFAM; PF00048; i18; 1.
PFAM; PF00048; i18; 1.
SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;
                                                                                                                                                                                                                    MEDLINE; 97320499.

PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO GOSSELIN M., MA J., DUSSAULT B., WOOLF B., ALPERIN A., C GUTIERREZ-RAMOS J.C., GEARING D.; "Neurotactin, a membrane-anchored chemokine upregulated inflammation.";
                                                                                                                                         NATURE 387:611-617(1997).
EMBL, AF010586; G2317698; -.
MGD; MGI:1097153; SCYD1.
PFAM; PF00048; 118; 1.
SEQUENCE 395 AA; 42098 MW
                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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NARDELLI B., PIPPALLA V., GE
GENTZ R., GAROTTA G.;
J. EXP. MED. 0:0-0(0).
EMBL; U85768; G1916252; -.
PFAM; PF00048; I18; 1.
SEQUENCE 119 AA; 13119 MY
                                                                                                                                                                                                                                                                         VILLARES R.;
SUBMITTED (JUL-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF053313; G3551819; -.
EMBL; AJ007862; E1312757; -.
SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       089093;
089093;
01-NOV-1998
01-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JLT 3
000175
000175;
01-JUL-1997
01-JUL-1997
01-NOV-1998
TLT 5
000585
000585;
01-JUL-1997
01-JUL-1997
                                                                                                                                                                                                                                                 CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                  [1]
SEQUENCE FROM N.A.
CONTROL OF LOREZ H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LARC
                                                                                                                                                                                                                                                                                                                                                                                    "A novel rat CC chemokine, id display, is upregulated in br J. NEUROIMMUNOL. 0:0-0(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CC CHEMOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATARRHINI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MPIF-2
                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                 SIGNAL
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                                                                                                                                       75
                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             74 CGDPKQEWVQ 83
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                                                                                                                         |:|||| |||
CADPKQKWVQ
                                                                                                           CADPKOKWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        h 86.9%;
Similarity 80.0%;
8; Conservative
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28
97 /
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(TREMBLREL.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TREMBLREL. 08, CREATED)
(TREMBLREL. 08, LAST SEQUENCE UPDATE)
(TREMBLREL. 08, LAST ANNOTATION UPDATE)
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 (TREMBLREL.
                                                                                                                                                                    84.5%;
larity 88.9%;
Conservative
                                              PRELIMINARY;
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brain inflammation.";
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Pred. No.
1; Misma
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                  Score 71; DB 11;
Pred. No. 5.65e-03;
1; Mismatches 0
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CREATED)
LAST SEQUENCE UPDATE)
                                                                                                                                                                                                                               POTENTIAL.
CC CHEMOKINE ST38
053405BD CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
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d. No. 2.14e-03;
Mismatches 1;
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THOTAKURA
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MUS.
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Q99664
Q99664;
Q1-MAY-1997 (TREMBLREL 0
01-MAY-1997 (TREMBLREL 0
01-NOV-1998 (TREMBLREL 0
                                                                                                                                                                                                                                                                                                                                                                      TISSUE=PANCREAS;
MEDLINE; 97275143.
HROMAS R., GRAY P.W., GELL G.I., TAKEDA J., &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.

NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA M.,

NISHIMURA M., KAKIZAKI M., NOMIYANA H., YOSHIE O.;

SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.

EMBL; U88320; G2196920; -.

EMBL; HF001979; G2624925; -.

EMBL; AF001979; G2624925; -.

EMBL; AF001979; G2624925; -.

EMBL; AF001979; B1022673; -.

PEAM; PF00048; 118; 1.
                                                                                                                                                                                                                  "Cloning and characterization of exodusticon 89:3315-3322(1997).
EMBL; U64197; G1778717; -.
PROSITE; PS00472; SNALL_CYTOKINES_CC; PFAM; PF00048; i18; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE: 97400322.
HEDRICK J.A., ZLOTNIK A.;
"Identification and characterization of containing six conserved cysteines.";
J. IMMUNOL. 159:1589-1593(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BETA CHEMOKINE EXODUS-2.
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHEMOKINE EXODUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. HEDRICK J.A., ZLOTNIK A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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BETA CHEMOKINE EXODUS-2.
                                                                                                                                                                                                                                                                                                                                                    KLEMSZ M.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBMITTED (MAY-1997)
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|||||: |||
1 CADPKQKWVQ 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                              73
                                                                                          Local Similarity 77.8%, es 7; Conservative
_
                                              CANPKOTWV
CADPKQKWV 9
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larity 80.0%;
Conservative
                                                                                                                                                                                                AA;
                                              81
                                                                                                                                                                                             10691 MW;
                                                                                                                  79.8%;
77.8%;
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14646 MW;
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ARONICA
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Pred.
1; M
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDAT
                                                                                                                  Score 67; DB 4; I
Pred. No. 3.77e-02;
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                                                                                                                                                                                                                                                                                                                       exodus,
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No. 2.36e-02
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                                                                                                                                                                                             CRC32;
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                                                                                                                                                                                                                                                                                                                                                                         COOPER
                                                                                                                                            Length 95;
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                                                                                          Indels
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BROXMEYER H.E.
                                                                                          9
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P97884;
P97884;
O1-MAY-1997 (TREMBLREL. 03, CREATED)
O1-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UP
O1-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION
CC CHEMOKINE EXODUS.
RATTUS NORVEGICUS (RAT).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MA
SCLUROGNATHI; MURIDAE; MURINAE; RATTUS.
LT 9
PRELIMINARY;
P78423; O00672;
01-MAY-1997 (TREMBLREL. 03,
01-MAY-1997 (TREMBLREL. 03,
                                                                                                                                                                                                                                                                                                                    SIGNAL
CHAIN
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MARIE MARIE AND GALLUS (CHICKEN).
GALLUS GALLUS (CHICKEN).
EUKARYOTA; METAZOA; CHONDATA; VERTEBRATA; ARCHOSAURIA; AVES;
NEOCNATHAE: GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   057411
057411;
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SEQUENCE
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KELNER G.S., MACIEJEMSKI-LENOIR D., LEE E.
SUBMITTED (FEB-1997) TO EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                        ROSSI D.L., BAZAN J.F., Z
SUBMITTED (JUN-1997) TO E
EMBL; AF006742; G2827882;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-JUN-1998 (TREMBLREL. 06, 01-JUN-1998 (TREMBLREL. 06, 01-JUN-1998 (TREMBLREL. 06, LYMPHOTACTIN PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "A novel rat CC chemokine, iddisplay, is upregulated in bro J. NEUROIMMUNOL. 0:0-0(1998).
EMBL: U90447; G1899246; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
STRAIN-FISHER 344; TISSUE-BRAIN;
UTANS-SCHNEITZ U., LOREZ H., KLINKERT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
TISSUE-SPLEEN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; AF053312; G35: PFAM; PF00048; 118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LESSLAUER W.;
                                                                                                                                                                          73 CVHPEQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 74 CADPKQIWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                  1 CADPKQKWVQ 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CADPKQKWV 9
                                                                                                                                                                                                                                 h 78.6%;
Similarity 70.0%;
7; Conservative
                                                                                                                                                                                                                                                                                                                      97
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                                                                                                                                                                                                                                                                                                              1
25
`AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
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88.9%;
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EMBL/GENBANK/DDBJ
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brain infla
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Pred. No. :
0; Mismat
                                                                                                                                                                                                                                 Score 66; DB 13; Lo
Pred. No. 6.01e-02;
0; Mismatches 3;
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDAT
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3290101C CRC32;
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                                                                   PRT;
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                                                                   397
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3.77e-02;
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DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MAMMALIA;
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Best Local Similarity
Matches 7; Conser
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A-152E5.2.
A-152E5.2.
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; V'
EUKARYOTA; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     O14745

Q14745

Q14745

Q1-4745

Q1-NOV-1996 (TREMBLREL. 01, CREATED)

Q1-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)

Q1-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)

LD78 ALPHA BETA PRECURSOR (FRAGMENT).

HOMO SAPIENS (HUMAN).

EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; U91835; G1899259; -.
EMBL; U84487; G1888523; -.
EMBL; AC004382; G3252821; -.
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ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J.,
BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
"Homo sapiens Chromosome 16 BAC clone CIT997SK-A-152E5.";
SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BAZAN J.F., BACON K.B., HARDIMAN G., WANG W., GREAVES D.R., ZLOTNIK A., SCHALL T.J.;
"A new class of membrane-bound chemokine with NATURE 385:640-644(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ISHIZUKA K., IGATA-YI
KATSURAGI S., KIN Y.,
MIYAKAWA T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1998 (TREMBLREL. CX3C CHEMOKINE PRECURSO
                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                       SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                       SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATARRHINI;
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                                                                                                                                                                                                                                                                                                              CHAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUBMITTED (AUG-1995) TO EMBL/GENBANK/DDBJ
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                                                            67 CADPSEEWVQ 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CADPKOKWV 9
CADPKQKWVQ 10
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                                                                                                                                                                                                                                                                                                                                                                                                                                PF00048; i18; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    3785; G961440; -. PS00472; SMALL_CYTOKINES_CC;
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397
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17
80
                                                                                                                        Conservative
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16
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8857 MW;
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                                                                                                                                               76.2%;
70.0%;
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77.8%;
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                                                                                                                        Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 66; DB 4; Lei
Pred. No. 6.01e-02;
1; Mismatches 1;
                                                                                                                                                  Score 64; DB 4;
Pred. No. 1.51e-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  POTENTIAL.
CX3C CHEMOKINE.
; C8093D7D CRC32;
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                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         K., NAKASHIMA H., OH
NOMIYAMA H., IIO M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DATA BANKS
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OR8430 PRELIMINARY; PRT; 92 AA.

OR8430; (TREMBLREL 08, CREATED)

T 01-NOV-1998 (TREMBLREL 08, LAST SEQUENCE UPD;

T 01-NOV-1998 (TREMBLREL 08, LAST ANNOTATION U

OC CHEMORINE ABCD-1.

S MUS MUSCULUS (MOUSE).

OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAN

OC EUKARYOTA; SCIUROGNATHI; MURIDAE; MURINAE; MU
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Best Local S
Matches
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093238;
01-NOV-1998 (TREMBLREL. 0
01-NOV-1998 (TREMBLREL. 0
01-NOV-1998 (TREMBLREL. 0
01-NOV-1998 (TREMBLREL. CC CHEMOKINE-1.
                                                                                                     043646 PRELIM
043646;
01-JUN-1998 (TREME
01-JUN-1998 (TREME
01-NOV-1998 (TREME
RANTES PRECURSOR.
               HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CYPRINUS CARPIO (COMMON CARP).

EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTER
TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINOIDEA;
CYPRINIDAE; CYPRININAE; CYPRINUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Activated murine B lymphocytes and dendritic cells produce a C chemokine which acts selectively on activated T cells."; J. EXP. MED. 188:451-463(1998).

EMBL; AF052505; G3378116; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SCHANIEL C., PARDALI E., SHIMIZU T., SEIDL T., ANI SIDERAS P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBMITTED (JAN-1998) TO EMBL/GENBANK/DDBJ DATA EMBL; AB010469; D1032417: -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               eotaxins.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FUJIKI K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FUJIKI K., NAKAO M., SHIN D., YANO T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE;
                                                                                                                                                                                                                                                                                                74 CSDPKLRWV
|:||| :||
1 CADPKQKWV
                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          76 CADPRQVWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 CADPKQKWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
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                                                                                                                         (TREMBLREL.
(TREMBLREL.
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                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
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                                                                                                                                                                                                                                                                                                                                          82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                84
                                                                                                                                                                                                                                                                                                                                                                                                      73.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10302 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       75.0%;
77.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11266 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  E., SALLUSTO F.,
ANDERSSON J., M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 888
                                                                                                                           888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 63; D
Pred. No. 2.
1; Mismatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                Score 62; DB 13;
Pred. No. 3.74e-01
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                           LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                     CREATED)
                                       VERTEBRATA; MAMMALIA;
                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YANO T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BC7219A0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9CFBD540 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MELCHERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     homologous to
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ELCHERS F., R
                                                                                                                                                                                                               91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 11;
2.38e-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CRC32;
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MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                          Length 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
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                                                                                                                                                                                                                                                                                                                                                                                    Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mammalian
                                       EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               92
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Best Local S
Matches
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Best Local
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                                                                                                                                                                                                                                                                                                          SULT 15
O15467; PRELIMINARY;
O15467;
O1-JAN-1998 (TREMBLREL. 05, C:
O1-VAN-1998 (TREMBLREL. 05, C:
O1-NOV-1998 (TREMBLREL. 08, L:
IL-10-INDUCIBLE CHEMOKINE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             055038 PRELIMINARY; PKI, 10055038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755038; 0755
                                                                                                                                                                             ILINCK OR SCYAI6.
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B LYMPHOCYTE CHEMOATTRACTANT BLC.
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBMITTED [2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Burkitt's lymphoma receptor-1.";
NATURE 391:799-803(1998).
EMBL; AF044196; G2911374; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Structure of a region of 181 kb containing five CC (
SUBMITTED (AUG-1998) TO EMBL/GENBANK/DDBJ DATA BANKS
EMBL; AF043341; G290563; -.
EMBL; AF088219; G3719366; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GUNN M.D., NGO V.N., WILLIAMS L.T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIGNAL.
SEQUENCE FROM N.A
                                                       SEQUENCE FROM N.A.
HEDRICK J.A., HELMS A.,
SUBMITTED (NOV-1997) TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE; 98146056.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NOMIYAMA
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JANG J.S., KIM B.I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     75 CVNPRAKWLQ
| :|: ||:|
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      73 CANPEKKWVR 82
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B-cell-homing chemokine made in
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (JAN-1998)
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larity 50.0%;
Conservative
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91
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                                                       GORMAN D., ZLOTNIK A.;
EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL/GENBANK/DDBJ DATA BANKS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 60; DB 11;
Pred. No. 9.12e-01;
3; Mismatches 2
                                                                                                                                                                                                                                                                                                                                           LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                         CREATED)
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2; 1
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Pred. No. 9.12e-01
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CF404FAD CRC32;
                                                                                                                                                                                                                 VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
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                                                                                                                                                                                                                 MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   follicles activates
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                 EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                chemokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EUTHERIA; RODENTIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               91;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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RESULT

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Best Local S
Matches
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083516;
01-NOV-1998
01-NOV-1998
01-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                MEDLINE; 98332770.

MEDLINE; 98332770.

MEDLINE; 98332770.

FRASER C.M., NORRIS S.J., WEINSTOCK G.M., WHITE O., SUTTON G.G., DODSON R., GWINN M., HICKEY E.K., CLAYTON R., KETCHUM K.A., SODERGREN E., HARDHAM J.M., MCLEOD M.P., SALZBERG S., PETERSON J., SODERGREN E., HARDHAM J., HOWELL J.K., CHIDAMBARAM M., UTTERBACK T. KHALAK H., RICHARDSON D., HOWELL J.K., CHIDAMBARAM M., UTTERBACK T. MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND M.D., HORST K., ROBERTS K., WATTHEY L., WEIDMAN J., SMITH H.O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. MEDLINE; 98308096.
YOUN B.S., ZHANG S. HANGOC G., KWON B.S
                                                                                                                                FRASER C.M., NORRIS S.J., WEINSTOCK G.M., WHITE O., SUTTON G.G., DODSON R., GWINN M., HICKEY E.K., CLAYTON R., KETCHUM K.A., SODERGREN E., HARDHAM J.M., MCLEOD M.P., SALZBERG S., PETERSON J., KHALAK H., RICHARDSON D., HOWELL J.K., CHIDAMBARAM M., UTTERBACK T. MCLDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLANI
                       SUBMITTED (MAR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS EMBL; AE001226; G3322795; -.
HYPOTHETICAL PROTEIN.
                                                                                                                                                                                                                                                                                                                       "Complete Genome Spirochete.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE-LIVER;
SHOUDAI K., HIESHIMA K., FUKUDA S.,
YOSHIE O., NOMIYAMA H.;
BIOCHIM. BIOPHYS. ACTA 0:0-0(1998)
  HYPOTHETICAL SEQUENCE 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BACTERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TREPONEMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HYPOTHETICAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PFAM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       monocyte chemoattractant human
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                                                                                            VENTER J.C.
                                                                                                             HATCH B.,
                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                  SCIENCE 281:375-388(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIOCHEM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Isolation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NOMIYAMA H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CADPKQKWVQ 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTNPNDDWVQ 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PF00048; il8; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AB007454; D1024963; -. AF088219; G3719365; -. AF055467; G3395776; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EM. BIOPHYS. RES. COMMUN. U91746; G2581781; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
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                                                                                                               HORST K., ROBERTS K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PALLIDUM.
SPIROCHAETALES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KWON B.S.; and characterization
  187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZHANG S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TREMBLREL. 08, CREATED)
(TREMBLREL. 08, LAST SEQUENCE UPDATE)
(TREMBLREL. 08, LAST ANNOTATION UPDATE)
L 21.4 KD PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     70.2%;
llarity 50.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
  A,
                                                                                                                                                                                                                                                                                                                                             Sequence
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  21410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BROXMEYER H.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of 181 kb containing five CC chemokine genes."; DEMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FUKUDA S.,
  WW;
                                                                                                                                                                                                                                                                                                                                                  e
E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SPIROCHAETACEAE; TREPONEMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 59; DB 4; I
Pred. No. 1.41e+00;
4; Mismatches 1
                                                                                                                                                                                                                                                                                                                                               Treponema
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       on of LMC,
CC chemol
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A079DF66 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             247:217-222(1998).
  50303E26 CRC32;
                                                                                                               WATTHEY L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       f LMC, a novel lymphocyte and
chemokine, with myelosuppres
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OII
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       187
                                                                                                                                                                                                                                                                                                                                             pallidum,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
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                                                                                                               WEIDMAN J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MIURA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 120;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FRASER
                                                                                                                                                                                                                                                                                                                                             the Syphilis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
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                                                                                                             SMITH H.O.,
                                                                                                                                       GARLAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
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γ.,
                                                                                                                                     S
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Query Match

70.2%;

Score

59;

DВ

2;

Length

187;

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RESULT 18
ID 009006;
AC 009006;
DT 01-UIL-1997 (TREMBLREL. 04, CR DT 01-UIL-1997 (TREMBLREL. 07, LA DT 01-NOY-1998 (TREMBLREL. 08, LA DT 01-NOY-1998 (TREMBLAR EN URINAL FETUS;
RN GUDENCE FROM N.A.
RC TISSUE-TOTAL FETUS;
RN MEDLINE; 97444139,
RA MEDLINE; 97444139,
RA HROMAS R., KIM C.H., KLEMSZ M. SCHUIZLEIN-BICK C., BROXMEYER RI "ISOlation and characterizatic RT "Isolation and characterizatic with a unique 37-amino acid c: RI J. IMMUNOL. 159:2554-2558(199; RN [2]]
RP SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PESULT 17
PESULT 17
PESULT 000002;
AC 000002;
DT 01-UL-
DT 01-VV-
DE SMALL I
GN SCYAALL
OS MUS MUS
OC EUKARYO
OC SCIUROG
RN [1]
RP SEQUENC
RA TANABE
RA COLLINS
KL SUBMITI
RN [2]
RP SEQUENC
RX MEDLINE
RA HEDRICA
RT "Identi
RI J. IMMI
RN [3]
RP SEQUENC
RA HEDRICA
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RT SEMBL; 1
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DR MEDL; 1
DR MEDL; 2
DR MEDL; 1
DR MEDL; 1
DR MEDL; 2
DR MEDL; 3
DR MEDL; 3
DR PEAM; 1
SQ SEQUENC
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Best Local S
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 63.6%; Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-JUL-1997
01-JUL-1997
01-NOV-1998
                                       TISSUE-TOTAL FETUS;
MEDLINE: 97444139.
HROMAS R., KIM C.H., KLEMSZ M., KRATHWOHL M.,
SCHNIZLEIN-BICK C., BROXMEYER H.E.;
"Isolation and characterization of Exodus-2, a
"Isolation and characterization of with a unique 37-amino acid carboxyl-terminal
y. IMMUNOL. 159:2554-2558(1997).
                                                                                                                                                                                                          MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VF
SCIUROGNATHI; MURIDAE; MURINAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
MEDLINE; 97400322.
HEDRICK J.A., ZLOTNIK A.;
"Identification and characterization containing six conserved cysteines.";
J. IMMUNOL. 159:1589-1593(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE-THYMUS;

TANABE S., LU Z., LUO Y., QUACKENBUSH E.J., BERMAN M.A.,

COLLINS-RACIE L.A., MI S., REILLY C., LO D., JACOBS K.A.,

SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; AF006637; G2209189; -. EMBL; AF001980; G2624927; -. MGD; MGI:1097677; SCYA21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SCYA21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SMALL INDUCIBLE CYTOKINE A21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          009002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBMITTED (MAY-1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HEDRICK J.A., ZLOTNIK A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31 CTQPRVQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   75 CANPEEGWVQ 84
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 CADPK-QKWVQ 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                CADPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PF00048; il8; ICE 133 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     h 69.0%;
Similarity 60.0%;
6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (TREMBLREL. 04, CREATED)
(TREMBLREL. 04, LAST SEQUENCE UI
(TREMBLREL. 08, LAST ANNOTATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14558 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                          CREATED)
LAST SEQUENCE UPDATE;
LAST ANNOTATION UPDATE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 58;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. 1.41e+00; 3; Mismatches 0;
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                                                                                                                                                                                                                                  VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                       PRT;
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                                                                                                                                                                                                                  NUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       re 58; DB 11; Le
1. No. 2.19e+00;
Mismatches 2;
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                                                                                                                                                                                                                                  MAMMALIA; EUTHERIA; RODENTIA;
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                                                                            'n
                                                                                                                  FIFE
                                                            extension.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 133;
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                                                                                                                  K., COOPER S.,
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888888
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Best Local S
Matches
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Matches
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MEDLINE; 97094384.

MOORE P.S., BASHOFF C., WEISS

"Molecular mimicry of human cy
genes by KSHV ";
SCIENCE 274:1739-1744(1996).
[2]
                                                                                                                      JLT 20
Q98158 PREL
Q98158; Q12569;
Q1-FEB-1997 (TRE
01-JUL-1997 (TRE
01-NOV-1998 (TRE
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8661-AON-10
9861-AON-10
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MGD; MGI:1097677; SCYAR21.
PFAM; PF00048; i18; 1.
SEQUENCE 133 AA; 14600 MW; B34A5E22 CRC32;
                                                                               KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HE GAMMAHERPESVIRINAE; RHADINOVIRUS.
                                                                                                               ORF K6.
                                                                                                                                                                                                                                                                                      SUBMITTED (MAY-1998) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; AE001355; G3329297; -. SEQUENCE 1053 AA; 120168 MW; 781C1449 CRC32;
                                                                                                                                                                                                                                                                                                                  STEPHENS R.S., KALMAN S., LAMMEL C.J., FAN J., MITCHELL W.P., OLINGER L., TATUSOV R.L., ZHAO C DAVIS R.W.,
                                                                                                                                                                                                                                                                                                                                                                                         "Genome Sequence of an Chlamydia trachomatis."
                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN-D/UW-3/CX;
STEPHENS R.S., KALMAN S
MITCHELL W.P., OLINGER
DAVIS R.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE=TOTAL FETUS;
HROMAS R.A.;
                                                             SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BACTERIA; CHLAMYDIALES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CHLAMYDIA TRACHOMATIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RIBONUCLEOSIDE REDUCTASE,
                                                                                                                                                                                                                                                                                                                                                                               SCIENCE 0:0-0(1998).
                                                                                                                                                                                                                           954 CASRRQKWID
                                                                                                                                                                                                                                            y Match 69.0%;
Local Similarity 50.0%;
les 5; Conservative
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R L.,
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08, LAST SEQUENCE UPDATE)
08, LAST ANNOTATION UPDATE)
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                                         WEISS
                                                                                                                                                                                                                                                                                                                                                                                                                       LAMMEL C. TATUSOV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LARGE CHAIN
                                                                                                                      , CREATED)
, LAST SEQUENCE UP
, LAST ANNOTATION
                              SS R.A., C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 58;
Pred. No.
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Pred. No.
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Mismatches 2
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                                         CHANG
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                                                                                           HERPESVIRIDAE
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                              cytokine
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                                                                                                                                                                                                                                                                  Length 1053;
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KOONIN E.V.,
                              response pathway
                                                                                                                                                                                                                                                Indels
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                                                                                                                                                                                                                                                                                                                                                                                                    of Humans:
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Best Local :
     Query Match 67.9%;
Best Local Similarity 60.0%;
Matches 6; Conservative
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SUM R., LIN S.-F., MILLER G.;
SUBMITTED (SEP-1996) TO EMBL;
U75598; G1718266; -.
EMBL; U74585; G1658273; -.
EMBL; U74585; G1658273; -.
EMBL; U793872; G2246546; -.
EMBL; U793872; -.
E
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MEDLINE; 97121480.
RUSSO J.J., BOHENZKY R.A., C
PARRY J.P., PERUZZI D., EDEI
"Nucleotide sequence of the
(HHV8).":
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062812;
062812;
01-AUG-1998
01-AUG-1998
01-AUG-1998
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RUSSO J.J., BOHENZK
PARRY J.P., PERUZZI
SUBMITTED (OCT-1996
                                                                                                               EMBL; AFO NON_TER SEQUENCE
                                                                                                                                                                                               FRANCHINI
SUBMITTED
                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
TISSUE-BRONCHOALVEOLAR TISSUE;
                                                                                                                                                                                                                                                                                                                          EQUUS CABALLUS (HORSE).
EUKARYOTA; METAZOA; CHORDATA;
PERISSODACTYLA; EQUIDAE; EQUU
                                                                                                                                                                                                                                                                                                                                                                                                                                               01-AUG-1998 (TREMBLREL.
01-AUG-1998 (TREMBLREL.
01-AUG-1998 (TREMBLREL.
INTERLEUKIN-8 (FRAGMENT)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B.;
"Cell-homologous genes in the Kaposi's sarcoma-associated human herpesvirus 8: determinants of its pathogenicity?";
J. VIROL. 71:4187-4192(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. MEDLINE; 97296220.
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HENDRICKSON S., GUO H.G., HAYWARD G.S., RI
SUBMITTED (NOV-1996) TO EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. NICHOLAS J., RUVOI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RUSSO J.J.,
PARRY J.P.,
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                                                                                                                                         TTED (APR-1998) TO EMBL/GENBANK/DDBJ
AF062377; G3126973; -.
ER 97 97
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., PERUZZI D., ED
(OCT-1996) TO EM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (MAY-1997)
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larity 60.0%;
Conservative
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                                                                                                                  A,
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                                                                                                               10742 MW;
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07,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL/GENBANK/DDBJ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .S.A.
                                                                                                                                                                                                                                                                                                                                     EQUUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     G.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CREATED)
LAST SEQ
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Pred. No. 3
2; Mismat
Score 57; DB 6; I
Pred. No. 3.36e+00;
1; Mismatches 3
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                                                                                                                                                                                                                                                                                                                                                               VERTEBRATA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE UI
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No. 3.36e+00;
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                                                                                                            CRC32;
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                                                                                                                                                                                               DATA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DATA
                                                      Length 97;
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MOORE P.
     Indels
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                                                                                                                                                                                                                                                                                                                                                               EUTHERIA;
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RESULT 22

ID 023536 PRELIMINARY; PKI;

AC 023536
DT 01-JAN-1998 (TREMBLREL. 05, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
DT 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
DE RESISTANCE GENE HOMOLOG.
OS ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
OC EUKARYOTA; VIRIDIPLANTAE; CHAROPHYTA/EMBRYOPHYTA; EMBRYOPHYTA;
COC TRACHEOPHYTA; EUPHYLLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
COC TRACHEOPHYTA; EUPHYLLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
COC TRACHEOPHYTA; ROSIDAE; CAPPARALES; BRASSICACEAE; ARABIDOPSIS.
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Best Local S
Matches
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EMBL; U97106; G2109275; -.

FFAM; PF00931; NB-ARC; 1.

PFAM; PF00931; NB-ARC; 1.

SEQUENCE 1361 AA; 154366 M
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004264;
01-JUL-1997
01-JUL-1997
01-NOV-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ARABIDOPSIS THALIANA (MOUSE-EAR.CRESS).
EUKARYOTA; VIRIDIPLANYAE; CHAROPHYTA/EMBRYOPHYTA, EMBRYOPHYTA;
TRACHEOPHYTA; EUPHYLLOPHYTES; SPERMATOPHYTA, MAGNOLIOPHYTA;
EUDICOTYLEDONS; ROSIDAE; CAPPARALES; BRASSICACEAE; ARABIDOPSIS.
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01-JUL-1997 (TREMBLREL.
01-NOV-1998 (TREMBLREL.
DOWNY MILDEW RESISTANCE
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SUBMITTED (JUN-1997) TO EM
EMBL; Z97342; E327026; -.
SEQUENCE 192 AA; 21535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM
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les 6; Conser
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larity 66.7%;
Conservative
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. 04, LAST SEQUENCE UPD
. 08, LAST ANNOTATION DEPROTEIN RPP5.
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EMBL/GENBANK/DDBJ DATA BANKS
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DANIELS
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3.36e+00;
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                                                                                                                                                                                           Length 1361;
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J.D.
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Best Local S
Matches
                                                                                                              Query Match 65.5%
Best Local Similarity 50.0%
Matches 5; Conservative
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043927; PRELIMINARY;
043927;
01-JUN-1998 (TREMBLREL 0
01-JUN-1998 (TREMBLREL 0
01-NOV-1998 (TREMBLREL 0
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STRAIN-SALVADOR I;
ROSENTHAL P.J.;
SUBMITTED (MAR-1998) TO EMB
EMBL; AF052747; G2970697;
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061090;
01-AUG-1998 (TREMBLREL. 07,
01-AUG-1998 (TREMBLREL. 07,
01-AUG-1998 (TREMBLREL. 07,
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SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GUNN M.D., NGO V.N., ANSEL K.M., ER WILLIAMS L.T.;
"A B-cell-homing chemokine made in Burkitt's lymphoma receptor-1.";
NATURE 391:799-803(1998).
                                                                                                                                                                                                                                                                                                                                                     NAPOLITANO M., SPINETTI G., GAETANO C., CAPOGROSSI C.M.; SUBMITTED (OCT-1997) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; AJ002211; E1249325; -. EMBL; AF044197; G2911376; -. EMBL; AF0248497; G3169814; -.
                                                                                                                                                                                                                                                                                                    SIGNAL
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BAGGIOLINI M., MOSER B.;
"B cell-attracting chemokine 1,"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. MEDLINE; 98130629.
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   CADPKQKWVQ
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RYOTA; METAZOA; CHORDATA;
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                          Score 55; DB 4; I
Pred. No. 7.84e+00;
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                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EKLAND E.H., CYSTER J.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ROOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lymphoid
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                                                                                                                                                                                                                                         CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLARK-LEWIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                chemokine expressed in
nphocytes via BLR1/CXCR5.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           follicles activates
                                                                                                                                                                         Length 109;
                                                                                                              4.
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                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
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                                                                                                              Gaps
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                         Query Match
Best Local s
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Best Local S
Matches
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065737 PRELIMINARY; PRT; 307 AA.
065737;
065737;
01-AUG-1998 (TREMBLREL. 07, CREATED)
01-AUG-1998 (TREMBLREL. 07, LAST SCOUENCE UPDATE)
01-AUG-1998 (TREMBLREL. 07, LAST SCOUENCE UPDATE)
01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
01-AUG-1998 (TREMBLREL)
07, LAST SCOUENCE (FRAMBLES) (FRAMBLES)
ETAGLEOPHYTA, VIRIDIPLANTAE; CHANDHYTA; MAGNOLIOPHYTA,
EUURICOTYLEDONS; ROSIDAE; FABALES; FABACEAE; PAPILIONOIDEAE;
                                                                                                          STRAIN-CV. CASTELLANA; TISSUE-ETIOLATED EPICOTYLS; ESTEBAN R., DOPICO B., LABRADOR E.; SUBMITTED (APR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.-I-CATALYTIC ACTIVITY: HYDROLYSIS OF TERMINAL, NON-F BETA-D-GALACTOSE RESIDUES IN BETA-D-GALACTOSIDES. EMBL; AJ005043; E1285876; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Sequence analysis of the genome of the unicellular cyanobacterium Synechocystis sp. strain PCC6803. II. Sequence determination of the entire genome and assignment of potential protein-coding regions.", DNA RES. 3:109-136(1996).
EMBL; D90917; D1019522; -.
HYPOTHETICAL PROTEIN.
SEQUENCE 145 AA; 16561 MW; 3370B865 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LT 26
PRELIMINARY; PRT; 145 AA.
P74671;
P74671;
O1-FEB-1997 (TREMBLREL. 02, CREATED)
O1-FEB-1997 (TREMBLREL. 02, LAST SEQUENCE UPDATE)
O1-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
HYPOTHETICAL 16.6 KD PROTEIN.
SYNECHOCYSTIS SP. (STRAIN PCC 6803).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KANEKO T., SATO S., KOTANI H., TANAKA A., ASAMIZU E., NAKAMURA Y., MIYAJIMA N., HIROSAWA M., SUGJURA M., SASAMOTO S., KIMURA T., HOSOUCHI T., MATSUNO A., MURAKI A., NAKAZAKI N., NARUO K., OKUMURA SHIMPO S., TAKEUCHI C., WADA T., WATANABE A., YAMADA M., YASUDA M., TABATA S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN-PCC6803; TABATA S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BACTERIA; CYANOBACTERIA; CHROCCOCCALES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE; 97061201.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. STRAIN-PCC6803;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                 NON_TER
                                                                                                                                                                                                                SEQUENCE FROM N.A.
266 CGQPTQKW 273
                                                                                                                                                                                                                                                                                                                                                                                                                                           60 PRQRWVQ
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                                       Similarity
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                                                                                  307 AA;
                         65.5%;
.larity 62.5%;
Conservative
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                                                                                 33486 MW;
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                         Score
Pred.
2; M
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Pred. No. 7.84e-
2; Mismatches
                                                                                  B1EA5B7D CRC32;
                            Mismatches
                                       No. 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                55; E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 2; I
7.84e+00;
                                       DB 10;
7.84e+00;
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                                                     Length
                                                                                                                                                       NON-REDUCING
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                          Indels
                                                                                                                                                                                                                                                                     EMBRYOPHYTA;
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                         0;
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                         Gaps
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CADPKQKW 8

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RESULT 29
ID Q51136
O51136
PRELIMINARY; PRT; 172 AA.
AC Q51315;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DT 01-NOV-1998 (TREMBLREL)
OS NEISSERIA MENINGTTIDIS.
OC BACTERIA; PROTEOBACTERIA; BETA SUBDIVISION; NEISSERIACE
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-M1080;
RX MEDLINE; 96326323.
RA ERWIN A.L., GOTSCHLICH E.C.;
RT (L-DH); evidence for a second meningococcal L-LDH with
RT regulation.";
RI J. BACTERIO. 178:4807-4813(1996).
DR EMBL; U58911; G1381738; -.
FT NON_TER 1
SQ SEQUENCE 172 AA; 19765 MW; 85C8B90D CRC32;
         RESULT
ID Q6
AC Q6
D7 01
D7 01
D7 01
D7 01
D7 E6
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Best Local Similarity 100.0%;
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local
Matches
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Best Local
Q67634 PRELIMINARY;
Q67634;
Q67634;
Q67634;
Q1-NOV-1996 (TREMBLREL. 01, LF
Q1-NOV-1996 (TREMBLREL. 08, LF
ECO Q PROTEIN (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            065736;
01-AUG-1998
01-NOV-1998
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ESTEBAN R., DOPICO B., LABRADOR E.;
SUBMITTED (SEP-1998) TO EMBL/GEBBANK/DDBJ DATA BANKS.
-!- CATALYTIC ACTIVITY: HYDROLYSIS OF TERMINAL, NON-REDUCING GALACTOSE RESIDUES IN BETA-D-GALACTOSIDES.
-!- SIMILARITY: BELIONGS TO FAMILY 35 OF GLYCOSYL HYDROLASES.
EMBL; AJ005042: E1321550; -.
EMBL; BJ0182; GLYCOSYL_HYDROL_F35; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-AUG-1998 (TREMBLREL. 07, CREATED)
01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
BETA-GALACTOSIDASE (EC 3.2.1.23) (LACTASE).
CICER ARIETINUM (CHICKPEA) (GARBANZO).
CICER ARIETINUM (CHICKPEA) (GARBANZO).
EUKARNOTA; VIRIDIPLANTAE; CHAROPHYTA/EMBRYOPHYTA, MAGNOLIOPHYTA;
TRACHEOPHYTA; EUPHYLLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
EUDICOTYLEDONS; ROSIDAE; FABALES; FABACEAE; PAPILIONOIDEAE; CICER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ERWIN A.L., GOTSCHLICH E.C.;
"Cloning of a Neisseria meningitidis gene for L-lactate dehydrogenase (L-LDH); evidence for a second meningococcal L-LDH with different
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BACTERIA; PROTEOBACTERIA; BETA SUBDIVISION; NEISSERIACEAE; NEISSERIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HYDROLASE; GLYCOSIDASE.
ACT_SITE 187 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 065736
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                                                                                                                                                                                                                                                                                                                                  3 PKQKWV
                                                                                                                                                                                                                                                                                                 4 PKOKWV
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Similarity 62.5%;
5; Conservative
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                                 CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                  Score 54; DB 2; Ler
Pred. No. 1.19e+01;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 55; DB 10
Pred. No. 7.84e-
2; Mismatches
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D1C226FF CRC32;
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7.84e+00;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 172;
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Best Local Similarity
Matches 6; Conser
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VIROLOGY 213:590-599(1995).
EMBL: U34966; G1185444; -.
PFAM; PF00048; 118; 1.
NON TER ... 23132 MW
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MEDLINE; 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Isolation and characterization of Marek's disease virus (MDV) cDNAs mapping to the BamHI-I2, BamHI-Q2, and BamHI-L fragments of the MDV genome from lymphoblastoid cells transformed and persistently infect
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GALLID HERPESVIRUS TYPE 1.
VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
ALPHAHERPESVIRINAE; VARICELLOVIRUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALPHAHERPESVIRINAE;
[1]
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PENG Q.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                               146 CVDPEAPWVQ 155
CADPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         96074534.
ZENG M., BHUIYAN Z.A., UBUKATA E.,
                                                                                                                                                                                                                                                                                                                                       203 AA;
                                                                                                                                                               64.3%;
llarity 60.0%;
Conservative
10
                                                                                                                                                                                                                                                                                                                                            23132 MW;
                                                                                                                                                               Score 54; DB 14;
Pred. No. 1.19e+01;
0; Mismatches 4
                                                                                                                                                                                                                                                                                                                                   887D04C3 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TANAKA A.,
                                                                                                                                                                                                                                                   Length 203;
                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NONOYAMA M.,
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1 44 100.0 66 24 W13598 Monocyte chemoattract 8.87e+01 3 44 100.0 67 24 W13599 Monocyte chemoattract 8.87e+01 3 44 100.0 67 24 W13595 Human monocyte chemoa 8.87e+01 4 41 100.0 68 24 W17668 Stem cell mobilising 8.87e+01 5 44 100.0 69 23 W20062 Human macrophage deri 8.87e+01 6 44 100.0 69 23 W20062 Human macrophage deri 8.87e+01 9 44 100.0 69 23 W20061 Human macrophage deri 8.87e+01 10 44 100.0 70 23 W20060 Human macrophage deri 8.87e+01 11 44 100.0 75 27 W22675 Human macrophage deri 8.87e+01 12 44 100.0 75 27 W22673 Bac 3 chemokine beta 8.87e+01 13 44 100.0 76 14 R87677 (3-Ala) MCP-1 15 44 100.0 76 15 R87680 MCP-1 16 44 100.0 76 20 W09374 Monocyte chemotatctic 8.87e+01 17 44 100.0 76 21 W11131 Mature human gl 8.87e+01 18 44 100.0 76 21 W11131 Mature human gl 8.87e+01 18 87e+01 19 44 100.0 76 11 P90292 Peptide from human gl 8.87e+01	Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.  SUMMARIES  Result Query  No. Score Match Length DB ID Description Pred. No.	a-geneseg32 1:part1 2:part2 3:part3 4:part4 5:part5 8:part8 9:part9 10:part10 11:part11 12: 14:part14 15:part15 16:part16 17:part17 19:part19 20:part20 21:part21 22:part22 24:part24 25:part25 26:part26 27:part27 29:part29	Title: VJS-08-927-939-8 Description: (1-6) from USO8927939.pep Perfect Score: 44 Sequence: 1 EICADP 6 Scoring table: PAM 150 Gap 15 Searched: 131922 seqs, 16180660 residues Post-processing: Minimum Match 0% Listing first 100 summaries	Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd  MPsrch_pp protein - protein database search, using Smith-Waterman algorithm Run on: Thu Apr 1 07:30:28 1999; MasPar time 2.63 Seconds Tabular output not generated.	**************************************
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                                                                                                                                                                                                                                                                                                                                                                                                     W13599 standard; peptide; 67 AA.
W13599;
07-NOV-1997 (first entry)
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Disclosure; Page 5; 27pp; English.
The present sequence represents an analogue, MCP-1 (10-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the N-terminal amino acids 1-9 of MCP-1, acts as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
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Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
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Similarity 100.0%;
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. No. 8.87e+01;
Mismatches 0;
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Human Stem cell Inhib
Stem cell inhibitor,
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Sequence of P6 precur
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pAT 464 gene product.
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Compresent sequence represents an analogue, MCP-1 (11-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the compresent sequence represents an analogue, which lacks the compresents and the compresents are an analogue, which lacks the compresents and inhibits binding to a MCP-1 cas it lacks MCP-1 biological activity and inhibits binding to a MCP-1 creceptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into complete and other cells e.g. basophils and lymphocytes into complete more entirely with MCP-1 for binding completes. The analogue competes more effectively with MCP-1 for binding completes more effectively with MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared completes. So sequence 67 AA;
                                                                      Query Match
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Matches
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Best Local
                                                                                                                                                                                             detecting and preventing meningitis

Claim 47; Fig 8/10; 98pp; English.

R73915 is the chemokine Human monocyte chemoattractant factor hMCP-3.

It contains the meningitis related antigenic sequences (MRHAS) claimed in R73896 and R73908, which are recognised by a monoclonal antibody from the hybridoma Rubella virus (RV)-1. The claimed MRHAS peptides may be used in immunoassays to diagnose the presence of bacterial and/or viral meningitis agents in a sample, or in prophylactic and therapeutic meningitis treatments. The peptides may also be used as
                                                                                                                                                                                                                                                                                                                                                   (SHAR/) SHARMA L R.
(VALS/) VAN ALSTYNE D.
Sharma LR, Van Alstyne D;
WPI; 95-14/431/19.
New peptide(s) and corresp. antibodies for the treatment of meningitis - the peptide(s) corresp. to homologous antigenic sites on bacterial and viral agents and on chemokine(s), used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human monocyte chemoattractant factor hMCP-3: themokine; vaccine; meningitis related homologous antigenic sequence; MRHAS; RV-1;
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                                                                                                                                          vaccines against meningitis.
NB: Identified by matching c
Sequence 67 AA;
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28-SEP-1993; US-127499.
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1 EICADP
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                                                                                                                                                             corresponding MRHAS peptides
                                                                      Score 44; DB 14;
Pred. No. 8.87e+01;
0; Mismatches 0
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lacks MCP-1 accellagent anti-inflammatory agent claim 7; Page 5; 27pp; English.

The present sequence represents an analogue, MCP-1 (9-76), of monocycchemoattractant protein-1 (MCP-1). The analogue, which lacks the N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 as it lacks MCP-1 which is an inflammatory mediator causing migration
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W13597;
07-NOV-1997 (first entry)
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23-OCT-1996; U16959.
24-OCT-1995; US-006051.
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Stem cell mobilising chemokine CKbeta-13.

Haematopoietic cell; parasitic infection; colony stimulating factor haematoregulator; immune response; bacterial infection; transplant; wound healing; bone marrow; immunosuppression; regeneration;
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                                                                                                                                                                                                                                                                                                                                                                                                      N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) lacks MCP-1 activity and inhibits receptor binding, useful as
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19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 neoplastic disease; viral disease; gene therapy; cytotoxic drug.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         lung disease.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          49 eicadp 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 EICADP 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    h 100.0%;
Similarity 100.0%;
6; Conservative
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Pred.
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8.87e+01
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                                                                                                                                                                                                                                                                                                                                                                        Macrophage derived chemokine (MDC) and analogues - used in the retreatment of inflammatory diseases, MDC antibodies used to treat provided the result of inflammatory diseases, MDC antibodies used to treat provided retreatment of inflammatory diseases. The macrophage derived chemokine, MDC, a member of the C-C (Cys-Cys) subfamily of cytokines has been isolated. MDC and it's canalogues may be used in the treatment of inflammatory diseases canalogues may be used in the treatment of inflammatory diseases considered by monocyte chemotaxis towards a site of inflammation. MDC and it's analogues also induce fibroblast coroliferation having a positive effect in wound healing and angiogenesis. They may prove to be clinically important in the treatment of tumours, by directly or indirectly inhibiting tumour coroliferation. Antibodies directed against MDC and its analogues may be used in the treatment of Crohn's disease, rheumatoid arthritis and atherosclerosis. Probes and/or primers for the identification of MDC encoding sequences can be derived from MDC encoding sequences.
                                                                                                                                                                                                                                                                                                       Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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Best Local
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R87678;
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Sequence 68 AA;
                                                                      angioplasty
                                                                                 des(2-8) MCP-1.
monocyte chemoattractant protein; MCP-1; mutant; restenosis;
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Godiska R, (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-DEC-1996.
07-JUN-1996; U10114.
07-JUN-1995; US-479620.
16-NOV-1995; US-558658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human macrophage derived chemokine analogue.
MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease; rheumatoid arthritis; chemotaxis; fibroblast prolliferation; wound healing; angiogenesis; inflammation.
                                                    Homo sapiens
                                                                                                                       21-FEB-1996 (first entry)
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                  modified_site
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                                                                                                                                                                                                                                                                    50 eicadp
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                                                                                                                                                                                                                                  1 EICADP
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                                                                                                                                                            standard; protein;
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Similarity 100.0%;
6; Conservative
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                  Location/Qualifiers 2..3
 /note-
   "amino acids
                                                                                                                                                                                                                                                                                                     Score 44; DB 23;
Pred. No. 8.87e+01;
0; Mismatches C
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Pred. No. 8.87e+01;
0; Mismatches 0
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   2-8
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native protein
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RESULT
AC W2
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Capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis.

Capable of inhibiting the monocyte chemoattractant activity of endogenous chat they inhibit the monocyte chemoattractant activity of endogenous mCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino capids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Blology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1999.

The peptides can be used to prevent restenosis, e.g. in patients
                                                                                                                                                                                     Macrophage derived chemokine (MDC) and analogues - used in the treatment of inflammatory diseases, MDC antibodies used to treat T Crohn's disease, rheumatoid arthritis, etc.

CI Crohn's Page 84; 106pp; English.

A new macrophage derived chemokine, MDC, a member of the C-C (Cys-Cys) subfamily of cytokines has been isolated. MDC and it's analogues may be used in the treatment of inflammatory diseases analogues may be used in the treatment of harmastic verification induce fibroblast concluderation having a positive effect in wound healing and angiogenesis. They may prove to be clinically important in the treatment of tumours, by directly or indirectly inhibiting tumour formation. Antibodies directed against MDC and its analogues may be used in the treatment of Crohn's disease, rheumatoid arthritis and atherosclerosis. Probes and/or primers for the identification of MDC analogues may be according to the control of the
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
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Best Local Similarity 100.0%;
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16-NOV-1995; US-558658.
(ICOS-) ICOS CORP.
Godiska R, Gray PW;
WPI; 97-052324/05.
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disulfide_bond 5..45
W09513295-A1.
18-MAY-1995.
07-NOV-1994; U12874.
12-NOV-1993; US-152301.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human macrophage derived chemokine analogue.
MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease; rheumatoid arthritis; chemotaxis; fibroblast proliferation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (DAND ) DANA FARBER CANCER INST ROllins B, Zhang YJ; WPI; 95-215051/28
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07-JUN-1996; U10114.
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WO9640923-Al.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W20061 standard; Protein; W20061;
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Sequence 69 AA;
                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  43 eicadp 48
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| EICADP 6
                                                                                                                          sequences can be derived 69 AA;
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5..45
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         69
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                                                                                                                                                   encoding sequences
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Score Pred.

No. 44

DB 23; 8.87e+01;

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19-DEC-1996: U10114.
7 07-JUN-1996; US-479620.
8 16-NOV-1995; US-458658.
9 (ICOS-) ICOS CORP.
9 Godiska R, Gray PW;
9 WPI; 97-052334/05.
9 Macrophage derived chemokine (MDC) and analogues - user treatment of inflammatory diseases, MDC antibodies user troopy diseases, rheumatold arthritis, etc.
9 Claim 25; Page 83; 106pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present sequence represents an analogue, MCP-1 (8-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammation sites MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared with 75:1 for prior art mutant 7ND.
                                                                                                                                                                                                                             Human macrophage derived chemokine analogue.
MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease; rheumatoid arthritis; chemotaxis; fibroblast proliferation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gong J, Lewis i, WPI; 97-165844/16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Monocyte chemoattractant protein analogue MCP-1 (8-76). Truncated monocyte chemoattractant protein-1; inhibitor; receptor binding; anti inflammatory; basophil; lymphocyte; allergy; chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              W13596 standard; peptide; 69 W13596;
                                                                                                                                                                                    Synthetic. 
W09640923-A1.
                                                                                                                                                                                                                                                                                                  W20060 standard; Protein; 70
W20060;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           anti-inflammatory agent
Claim 5; Page 5; 27pp; English.
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20-DEC-1996.
19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
                                                                                                                                                                                                                  wound healing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-terminally truncated monocyte chemo:attractant protein-1 lacks MCP-1 activity and inhibits receptor binding, useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-NOV-1997 (first entry)
                                                                                                                                                                                                                                                                                   11-SEP-1997 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                    1 EICADP 6
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                                                                                                                                                                                                                    angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 44; DB 24;
Pred. No. 8.87e+01;
0; Mismatches C
                                                                                                                                                                                                                    inflammation.
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WO9731098-A1.
                                                                                                                                                                                                                                                                          The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) Droll+ variant, which can be used to treat patients deficient in Ck beta10, while a Ck beta10 antagonist can be used to reduce excessive levels of Ck beta10. Ck beta10 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic diseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, regulates haematopoiesis and generates antibodies. Liabelled Ck beta10 can be used to identify its cognate receptor, while cells expressing the receptor can be used to compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or treat rheumatoid arthritis, autoimmune, chronic inflammatory or treat the material activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A new macrophage derived chemokine, MDC, a member of the C-C (Cys-Cys) subfamily of cytokines has been isolated. MDC and it's analogues may be used in the treatment of inflammatory diseases especially diseases characterised by monocyte chemotaxis towards a site of inflammation. MDC and it's analogues also induce fibroblast proliferation having a positive effect in wound healing and angiogenesis. They may prove to be clinically important in the treatment of tumours, by directly or indirectly inhibiting tumour formation. Antibodies directed against MDC and its analogues may be used in the treatment of Crohn's disease, rheumatoid arthritis and atherosclerosis. Probes and/or primers for the identification of MDC encoding sequences can be derived from MDC encoding sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Drol3+ chemokine betal0 or monocyte chemotactic protein 4 variant. Human; chemokine betal0; Ck betal0; treatment; antagonist; solid tumour; infection; autoimmune disease; asthma; antibody; fibrotic disease; psoriasis; neurodegenerative disease; wound healing; haematopoiesis regulation; gene therapy; chromosome identification; monocyte chemotactic protein 4;
                                                                                                                                                           infectious diseases, allergies, prostaglandin dependent fever and bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can be used to isolate genes encoding similar peptides, in gene therapy and for chromosome identification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH, Parmelee D, White J;
WPI: 97-435153/40
Polypeptide encoding chemokine beta 4 and monocyte chemotactic protein 4 - useful to treat tumours, autoimmune disease, infection, asthma and fibrosis Example 11; Fig 5; 83pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-FEB-1996; U02598.
23-FEB-1996; WO-U02598.
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W22675;
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                                        45
                                                                                                  Match 100.0%;
Local Similarity 100.0%;
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Local Similarity 100.0%;
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Pred.
0; M
                                                                                               Score 44; DB 27;
Pred. No. 8.87e+01;
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3. No. 8.87e+01;

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Best Local
    18-MAY-1995.
07-NOV-1994; I
12-NOV-1993; I
(DAND ) DANA I
ROllins B, Z
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R87677 standard; protein; 76
R87677;
21-FEB-1996 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              infectious diseases, allergies, prostaglandin dependent fever and bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic syndrome, lung inflammation and atherosclerosis. Ck betail CDNA can be used to isolate genes encoding similar peptides, in gene therapy and for chromosome identification.
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W22673 standard;
W22673;
                                                                                                                                                                                                                                                   disulfide_bond disulfide_bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       angioplasty.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   monocyte chemoattractant protein; MCP-1;
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Local Similarity 100.0%;
les 6; Conservative
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1994; U12874.
1993; US-152301.
DANA FARBER CANCER INST
B, Zhang YJ;
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11..36
12..52
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                                                                                                                                                                                                                                                                                                                                  "Asp
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Pred. No. 8.8
0; Mismatcl
                                                                                                                                                                                                                                                                                                                                  in the native sequence is
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                                                                                                                                                                                                                                                                                                                                      replaced by Ala"
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PD 13-SEP-1994; J01512.

PR 13-SEP-1993; JP-227385.

PR (TORA) TORAY IND INC.

PA (TORA) TORAY IND INC.

PA WPI; 95-131181/17.

PR WPI; 95-1311
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Best Local S
Matches
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R28660 standard; Protein;
R28660;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R87680 standard; protein; 76
R87680;
05-MAR-1996 (first entry)
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Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated that they inhibit the monocyte chemoattractant protein-1
12-NOV-1992.
27-APR-1992; J00550.
09-MAY-1991; JP-135950.
                                                                                                                                                                                                                             Plasmid; monocyte chemotactic factor; MCF; translation; termination; terminator; initiation; ribosome binding site;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
WO9507710-A1.
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                                                                                                                                                       Synthetic
                                                                                                                                                                                          RBS; promoter;
                                                                                                                                                                                                                                                                                                           24-MAR-1993
MCF.
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1 EICADP 6
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Local Similarity 100.0%;
nes 6; Conservative
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mes 6; Conser
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76 AA;
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larity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                          tryptophan;
                                                                                                                                                                                                                                                                                                                                                                                                                       76
                                                                                                                                                                                          repressor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 44; DB 15;
Pred. No. 8.87e+01;
0; Mismatches 0
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Pred. No. 8.87e+01;
0; Mismatches 0
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factor; MCAF; wound remedy.
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RESULT 17 ID W11131 standard;

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EICADP

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I Fukui T, Matsuo N, Yamada M, Yamagishi J;

IF WPI; 92-398864/48.

R N-PSDB; Q30745-46.

R N-PSDB; Q30745-46.

Prodn. of polypeptide(s) having monocyte chemotactic activity - using expression plasmids with E. coli elements and specific E. coli strains

Claim 1; Page 48 + Page 36; 56pp; English.

C An expression plasmid, pHM483, for producing MCF(76) consisting C of 76 amino acids was constructed. The prod. can be used for e. c treating bacterial infectious diseases.

R Sequence 76 AA;
                                  Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
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22-OCT-1992; 965678.

22-OCT-1992; US-965678.

27-MAX-1994; US-250958.

(UNMI) UNIV MICHIGAN.

Kunkel SL, Lyle LR, St

WPI; 96-505405/50.
                                                                                                                                                                 Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) - useful for therapy or diagnosis of restenosis, etc.

Disclosure; Column 13-14; 16pp; English.

This is the amino acid sequence of the human monocyte chemoattractant protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent stimulator of monocyte chemotaxis and is produced by injured vascular smooth cells thus attracting monocytes and macrophages which infiltrate the injured area and release growth factor. This causes proliferation of the vascular smooth cells resulting in restenosis. The gene sequence can be used to generate antisense sequences e.g. T48093-7, which can be used to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or macrophages, or smooth muscle cells, esp. in order to prevent vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Monocyte chemotactic protein 1.

Human; monocyte chemoattractant protein; antisense; inhibition; mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
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W09374 standard; Protein; 76
W09374;
                                                                                                                         Sequence
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hes 6; Conservative
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Similarity 100.0%;
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   Pred.
                                  Score 44; DB 20;
Pred. No. 8.87e+01
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Pred. No. 8.87e+01;
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Best Local S
Matches
                                                                                                                                                                 US7304234-A.
20-JUL-1989.
31-JAN-1989; 030423.
31-JAN-1989; US-304234.
(USSH) US Dept. of Health and HI
YOShimura T; Robinson E; Appelli
WPI; 89-263501/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LT 18
P90292 stand:
P90292;
17-JAN-1990
                            Peptide is
leukocytes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           targetted delivery of radioactive agent
Example 10; Column 19-20; 15pp; English.
W11131 represents mature human monocyte chemoattractant protein-1
(MCP-1). MCP-1 was radionuclide labelled and used in a method for
imaging a target site in vivo in an animal. Labelled MCP-1 was allowed
to accumulate at a target site (having MCP-1 receptors) in the animal
and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys
chemokine carrying either iodine-123 or iodine-131 can be used in the
method. Especially preferred is neutrophil activating peptide-2 (NAP-2)
which recognises interleukin-8 receptors and is labelled with
technetium-99m, indium-111, copper-62, rhenium-186 or rhenium-188.
The method can be used for imaging a site of infection, inflammation,
neoplasm, atheromatous lesion or restenosis.
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Mature human monocyte chemoattractant protein-1 (MCP-1).

MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8;

MCP-1; meutrophil activating peptide; labelling; imaging; targeting;

radionuclide; infection; inflammation; neoplasm; atheromatous lesion;
                                                                                                                                                                                                                                                                                                                                                                                                 modified_site
                                                                                                                                                                                                                                                                                                                                                                                                                               Key
                                                                                                                                                                                                                                                                                                                                                                                                                                               Human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Peptide from human giioma con con Glioma; leucocyte; chemotaxis; neoplasms
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29-APR-1994; US-235659.
(MLCW ) MALLINCKRODT MEDICAL INC.
(UNMI ) UNIV MICHIGAN.
Kunkel SL, Lyle LR, Strieter Rh
                                                Disclosure;
Peptide is d
                                                                                                                                                       New
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25-FEB-1997.
05-OCT-1992; 956862.
05-OCT-1992; US-956863.
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10-JUN-1997
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                                                                                                                        glioma or leucocyte
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard; peptide; 76 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                from human glioma cell line U-105MG.
; page 3; 46pp; English.
derived from glioma cel
and has mol. wt. 8400.
76 AA;
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                                                                                                                      specific chemotactic a eucocyte cells, useful
                                                                                                                                                                                                                                                                                                                                                  /label= OTHER
/note= "pyrog
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                    glioma cell li
wt. 8400. Used
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Pred. No. 8.87e+01
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ella E; )
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Jsed to
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                                                                                                                   activity for monocytes - 
l for treating infections
                                                U-105MG
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                       ) or from
neoplasms.
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Query Match

100.0%;

Score

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DB

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Length

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RESULT 19
RESULT 19
RS3398 standa
AC RS3398;
DT 15-DEC-1994
DE Sense MCP-1.
KW Antisense; mc
WW Antisense; mc
OS Mammalian.
FH Key
FT misc_differer
FN W09409128-A.
PD 28-APR-1994.
PD W09409128-A.
PD 28-APR-1994.
PD W09409128-A.
PT wascular rest
PS Disclosure; if
CC monocyte cher
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CC mediotabellec
CC energy alpha
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   RESOLT REAL ACTION OF THE PRINCE PRIN
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Best Local 9
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Matches 6; Conservative
                         disulfide_bond 12..52

w05513295-A1.

18-MAY-1995.

07-NOV-1994; U12874.

12-NOV-1993; US-152301.

(DAND ) DANA FARBER CANG

ROllins B, Zhang YJ;

WPI; 95-215051/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R87675 standa
R87675;
21-FEB-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The sequences given in F53398-99 represent sense and antisense monocyte chemotactic protein-1 (MCP-1) respectively. These oligonuclectides may be labelled with a radionuclide and use therapeutically for the treatment of vascular restenosis. Radiolabelled antisense MCP-1 compounds may be constructed using his energy alpha or beta emitting isotopes rather than the gamma emitters cutomarily used for diagnostic purposes. Antisense MCP-1 compounds inactivate MCP-1 or inhibit production of MCP-1 so that monocytes are not attracted to the area of vascular injury and proliferation of vascular cells is inhibited.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           (28-Asp) MCP-1.
monocyte chemoattractant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       proliferation of 
Sequence 76 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            vascular restenosis or potential restenosis Disclosure; Page 5; 42pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and peptide(s) - is used for inhibiting, treating or imaging areas of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-APR-1994.
20-OCT-1993; U10074.
22-OCT-1992; US-965678.
(MLCW ) MALLINCKRODT ME
   Human
                                                                                                                                                                                                                                                                              disulfide_bond
                                                                                                                                                                                                                                                                                                                                           modified_site
                                                                                                                                                                                                                                                                                                                                                                                                                                        angioplasty.
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                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  radionuclide;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Match 100.0%;
Local Similarity 100.0%;
les 6; Conservative
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monocyte chemo-attractant protein-1 (MCP-1) derivs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard; Protein;
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                                                                                                                                                                                                                                                 /note=
11..36
12..52
                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein;
                                                                                                INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 44; DB 10;
Pred. No. 8.87e+01;
0; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. 8.87e+01; 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                              in the native
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MCP-1;
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                                                                                                                                                                                                                                                                                                           sequence
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beta; emitting isotope;
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Best Local
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Best Local
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                                                                                                                                                                                     Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.

The peptides can be used to prevent restenosis, e.g. in patients
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               18-MAY-1995.
07-NOV-1994; U12874.
12-NOV-1993; US-152301.
(DAND ) DANA FARBER CANCER INST INC ROllins B, Zhang YJ;
WPI; 95-215051/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis Claim 3; Page 11; Zapp; English.

Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous
                                                                                                                                                                                                                                                                                                                                                                                     Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - (capable of inhibiting the monocyte chemo-attractant activity endogenous MCP-1 and can be used to treat restenosis Claim 5; Page 11; 22pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO9513295-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    disulfide_bond
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  angioplasty.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (24-Arg) MCP-1.
monocyte chemoattractant protein; MCP-1; mutant; restenosis;
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                                                                                                                                                                         undergoing
                                                                             Local Similarity 100.0%; los 6; Conservative
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                                       50 eicadp 55
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 EICADP 6
                                                                                                                                                     coronary artery angioplasty. 76 AA;
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ilarity 100.0%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein; 76 AA.
                                                                         Score 44;
Pred. No.
0; Misma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 44; DB 14; Length 76; Pred. No. 8.87e+01;
                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                             8.87e+01;
                                                                                                                   DB 14;
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                                                                                                               Length 76;
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                                                                         Gaps
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RESULT 22 ID W22672 standard; Protein; 77 AA.

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PR 11.5
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19-MAR-1998 (first entry)
Bac 2 chemokine betail or monocyte chemotactic protein 4 variant.
Human; chemokine betail0; Ck betail0; treatment; antagonist;
solid tumour; infection; autoimmune disease; asthma; antibody;
fibrotic disease; psoriasis; neurodegenerative disease;
wound healing; haematopolesis regulation; gene therapy;
chromosome identification; monocyte chemotactic protein 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          receptor, while cells expressing the receptor can be used to screen compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthritis, autolumnune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and bone marrow failure, silicosis, prostaglandin dependent fever and bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can be used to isolate genes encoding similar peptides, in gene therapy and for chromosome identification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   asthma and fibrosis

Example 11, Fig 5; 83pp; English.

The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) Bac 2 variant, which can be used to treat patients deficient in Ck beta10, while a Ck beta10 antagonist can be used to reduce excessive levels of Ck beta10. Ck beta10 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic diseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, regulates haematopoiesis and generates antibodies. Labelled Ck beta10 can be used to identify its cognate
                                                                                                                                                                                                                                                  Antisense; monocyte chemotactic protein-1; MCP-1; "C-C" family; chemoattractant cytokine; chemokine; monocyte; chemotaxis; vascular smooth muscle cell; proliferation; restenosis; balloon angioplasty.
                               New anti:sense oligo:nucleotide(s) and peptide(s) for inhibiting restenosis - are directed against C-C family cytokine(s) such as resterozite chemotactic protein, opt. radio:labelled for therapy or
                                                                                                       Lyle LR, Thomas-Mi
WPI; 95-263703/34.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Adams M, Alderson R, Applebaum E, Parmelee D, White J; WPI; 97-435153/40.
                                                                                        N-PSDB; T03528.
                                                                                                                                                             20-JUL-1995.
13-JAN-1995; U00605.
14-JAN-1994; US-182917.
                                                                                                                                                                                                                                                                                                                            Mature MCP-1
                                                                                                                                                                                                                                                                                                                                              20-MAR-1996
                                                                                                                                                                                                                                                                                                                                                             R86859
                                                                                                                                                                                                                                                                                                                                                                            R86859 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Polypeptide encoding chemokine beta 4 and monocyte chemotactic protein 4 - useful to treat tumours, autoimmune disease, infection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-FEB-1996;
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W09731098-A1.
                                                                                                                                            (MLCW ) MALLINCKRODT MEDICAL
                                                                                                                                                                                                                      WO9519167-A1.
                                                                                                                                                                                                                                       Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-FEB-1996; U02598.
23-FEB-1996; WO-U02598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Y Match 100.0%;
Local Similarity 100.0%;
hes 6; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     51 eicadp 56
                                                                                                                             Thomas-Miller
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Page 5; 50pp; English
                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AA;
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                                                                                                                             B
                                                                                                                                                                                                                                                                                                                                                                                  77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 44; DB 27;
Pred. No. 8.87e+01;
0; Mismatches 0
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                                                                                                                                                                                                                                                                      macrophage;
                                                                                                                                                                                                                                                                                         stimulation;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
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99999999999999

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rasthma and fibrosis

Example 11; Fig 5; 83pp; English.

The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) broll/2 variant, which can be used to treat patients deficient in Ck beta10, while a Ck beta10 can be used to treat leukaemia, solid tumours, chronic or comportunistic infections, autoimmune diseases, asthma, fibrotic cd diseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, regulates haematopoiesis and generates creeptor, while cells expressing the receptor can be used to screen cc compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and compounds for lung inflammation and atherosclerosis. Ck beta10 cDNA can be used to isolate genes encoding similar peptides, in gene therapy compounds.
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Best Local Similarity 100.0%;
                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             for this cell type. MCP-1 is produced by injured vascular smooth muscle cells and attracts the monocytes and macrophages which infiltrate the area, releasing growth factors and resulting in proliferation of vascular smooth muscle and restenosis. Nucleic acid molecules which are antisense to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may be useful for inhibiting vascular restenosis, partic. following balloon angioplasty or a related process. The molecule may be radiolabelled to increase its therapeutic effect or for imaging areas of potential
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Droll/2 chemokine betall or monocyte chemotactic protein 4 variant. Human; chemokine betall; (k betall; treatment; antagonist; solid tumour; infection; autoimmune disease; asthma; antibody; fibrotic disease; psoriasis; neurodegenerative disease; wound healing; haematopolesis regulation; gene therapy; chromosome identification; monocyte chemotactic protein 4; leukaemia; MCP-4; Droll/2 variant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Adams M, Alderson R, Parmelee D, White J; WPI; 97-435153/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              W22674;
19-MAR-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This sequence represents the mature form of monocyte chemotactic protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of chemoattractant cytokines or chemokines. It is a potent stimulator of monocyte chemotaxis and has an extemely high degree of specificity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Polypeptide encoding chemokine beta 4 and monocyte chemotactic protein 4 - useful to treat tumours, autoimmune disease, infect
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (HUMA-) HUMAN GENOME SCI INC.
Adams M, Alderson R, Applebaum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23-FEB-1996; U02598.
23-FEB-1996; WO-U02598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO9731098-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         W22674 standard; Protein; 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               51 eicadp 56
53 eicadp 58
                                                         Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 EICADP 6
                                                                                                                          for chromosome 
lence 79 AA;
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                                          Conservative
                                      Score
Pred.
0; M
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Pred. No. 8.87e+01;
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                                                         N 44
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                                                         DB 27;
8.87e+01;
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                                                                               Length 79;
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Example 11; Fig 5; 83pp; English.
The present sequence is human chemokine beta10 (Ck beta10) or
monocyte chemotactic protein 4 (MCP-4) Bac 1 variant, which can be
used to treat patients deficient in Ck beta10, while a Ck beta10
antagonist can be used to reduce excessive levels of Ck beta10. Ck
beta10 can be used to treat leukaemia, solid tumours, chronic or
opportunistic infections, autoimmune diseases, asthma, fibrotic
diseases, psoriasis and neurodegenerative diseases. It also
promotes wound healing, regulates haematopoiesis and generates
antibodies. Labelled Ck beta10 can be used to identify its cognate
                                                                                                                                                                                                                                                                 LT 26
W17665 standard; peptide;
W17665;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    receptor, while cells expressing the receptor can be used to screen compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA car be used to isolate genes encoding similar peptides, in gene therapy
              (SMIK) SMITHKLINE BEECHAM CORP.
Kreider BL, Li H, Pelus L, White JR;
WPI; 97-258956/23.
                                                                                                                                                                                          Stem cell mobilising chemokine CKbeta-10. Haematopoietic cell; parasitic infection; colony stimulating factor; haematoregulator; immune response; bacterial infection; transplant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bac 1 chemokine beta10 or monocyte chemotactic protein 4 variant. Human; chemokine beta10; Ck beta10; treatment; antagonist; solid tumour; infection; autoimmune disease; asthma; antibody; fibrotic disease; psoriasis; neurodegenerative disease; wound healing; haematopoiesis regulation; gene therapy; chromosome identification; monocyte chemotactic protein 4; leukaemia; MCP-4; Bac 1 variant.
                                                                   01-MAY-1997.
23-OCT-1996; U16959.
24-OCT-1995; US-0060
                                                                                                                                          wound healing; bone marrow; immunosuppression; regeneration; neoplastic disease; viral disease; gene therapy; cytotoxic dispathetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     syndrome, lung inflammation and atherosclerosis. be used to isolate genes encoding similar peptide and for chromosome identification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
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Adams M, Alderson R, Appl
                                                                                                                         WO9715594-A1.
                                                                                                                                                                                                                                                16-DEC-1997 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                               y Match 100.0%;
Local Similarity 100.0%;
hes 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                              56 eicadp 61
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new
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chemokine(s) able to mobilise stem cells - used where
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wo-002598.
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                                                                                                                                                                                                                                                                                     82 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                              Score 44; DB 27;
Pred. No. 8.87e+01;
0; Mismatches 0
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PS Claim 7; Page 11-12; 24pp; English.

CC The present sequence represents a chemokine, CKbeta-10, which is capable of mobilising stem cells. The chemokine can be used therapeutically to improve stem cells mobilisation, optionally together with a colony comprove stem cell mobilisation, optionally together with a colony color improve stem cell mobilisation, optionally together with a colony color increase the immune response to chronic infection (particularly color increase the immune response to chronic infection (particularly colorcease the immune response to chronic infection (particularly colorcease the immune response to chronic infection (particularly colorcease) in parasitic), to promote wound healing, in (transplant) colorcease in the reduced bone marrow function as a result of immunosuppressive treatment or disease, and to provide more rapid colorceases. The induced stem cells may be harvested for subsequent return to the patient, optionally after they have been genetically manipulated co-administered with a cytotoxic drug.

Sequence 82 AA:
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Best Local s
Matches
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Best Local
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07-JUN-1995; US-480449.
07-JUN-1995; US-480449.
(ICOS-) ICOS CORP.
GOdiska R, Gray PW;
                                                                                                                                                                                                                                                                                                                                                          Antibodies specific for macrophage-derived chemokine - useful for purifying or detecting the chemokine or modulating its activity Claim 3; Column 21-24; 22pp; English.

This sequence represents the macrophage-derived chemokine (MDC). This protein is used to produce the antibodies of the invention. The antibodies are useful for purifying MDC polypeptides, for detecting endogenous MDC in a host, and for modulating binding of MDC to its receptors. The DNA encoding this sequence can be used for identifying and isolating non-human MDC homologues. The MDC protein is potentially useful for treating inflammatory disorders, cancer, etc. Antagonists of MDC can be used for treating Crohn's disease, arthritis, atherosclerosis etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Macrophage-derived chemokine.
Macrophage-derived chemokine; MDC; antibody; binding modulator; therapy; arthritis; inflammatory disorder; cancer; Crohn's disease;
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W40811;
01-APR-1998 (first entry)
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                                                                                                                                         74 eicadp 79
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                                                                                                                                                                                                                                           Match 100.0%;
Local Similarity 100.0%;
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98-008038/01.
                                                                                        EICADP
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                                                                                                                                                                                                                                                                                                                                             93 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "mature protein"
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Pred. No. 8.87e+01;
0; Mismatches 0
                                                                                                                                                                                                          Score 44; DB 27;
Pred. No. 8.87e+01;
0; Mismatches 0
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Best Local :
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                                                                                                                                                                                                                                                                                      Macrophage derived chemokine for treating inflammation.
MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease; rheumatoid arthritis; chemotaxis; fibroblast proliferation;
                                                                                                                                                                                                                                                                                                                                                                                         W20058 standard; Protein; 93
W20058;
11-SEP-1997 (first entry)
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06-JUN-1995; WO-U07294.
(HUMA-) HUMAN GENOME SCI INC.
(SMIK ) SMITHKLINE BEECHAM CORP.
Li H, Seibel G;
   WO9640923-A1.
19-DEC-1996.
                                                                                                  protein
                                                                                                                                                                                                                                                              wound healing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                psoriasis, etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human chemokine beta-13 - useful for treating solid tumours,
leukaemia, infections, autoimmune disease, fibrotic disorders,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; T44026.
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12-DEC-1996.
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                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            eukaemia, infections, autoimmune
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Local Similarity 100.0%;
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                                                                                                                                                                                                                                                           angiogenesis; inflammation.
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                                                                                               /label= sig_peptide
25..93
                                                                                                                                                                                       Location/Qualifiers
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                                                                /label= mat_protein
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Pred. No. 8.87e+01;
0; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 23; Length 93;
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S Claim 1; Page 36-37; 47pp; English.

This polypeptide comprises human macrophage-derived monocyte chemotactic protein-5 (MCP-5), a novel C-C chemokine. C monocyte chemotactic protein-5 (MCP-5), a novel C-C chemokine. C Its amino acid sequence was deduced from a cDNA clone (see T90880 and T90883) isolated from a human macrophage cDNA c library. A claimed method for producing MCP-5 comprises culturing a host cell that is stably transformed or transfected with MCP-5 polynucleotide. Also claimed is a hybridoma that produces a monoclonal antibody (MAb) that is specifically reactive with the mature MCP-5. MCP-5 (or its analogues and fragments) is used to enhance the immune response in cases of wounds or infections, while its inhibitors (e.g. the MAb) are
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Matches
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07-JUN-1995; US-479620.
16-NOV-1995; US-558658.
(ICOS-) ICOS CORP.
GOdiska R, Gray PW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (Cys-Cys) subfamily of cytokines has been isolated. MDC and it's analogues may be used in the treatment of inflammatory diseases especially diseases characterised by monocyte chemotaxis towards a site of inflammation. MDC and it's analogues also induce fibroblast proliferation having a positive effect in wound healing and angiogenesis. They may prove to be clinically important in the treatment of tumours, by directly or indirectly inhibiting tumour formation. Antibodies directed against MDC and its analogues may be used in the treatment of Crohn's disease, rheumatoid arthritis and atheroscierosis. Probes and/or primers for the identification of MDC encoding sequences 23 AA;
                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB; T90880.
Polynucleotide encoding monocyte chemotactic protein-5 - useful in protein of e.g. inflammation, atherosclerosis, angiogenesis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (ICOS-) ICOS CORP.
Godiska R, Gray PW;
WPI; 97-489645/45.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Monocyte chemotactic protein 5; MCP-5; human; macrophage; Monocyte chemotactic protein 5; MCP-5; human; macrophage; chemokine; inhibitor; antiinflammatory; atherosclerosis; Crohn's disease; arthritis; angiogenesis; tumour; metasta:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Macrophage derived chemokine (MDC) and analogues - used treatment of inflammatory diseases, MDC antibodies used Crohn's disease, rheumatoid arthritis, etc. Claim 1; Page 73; 106pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W09735982-A2.
02-OCT-1997.
26-MAR-1997; U04898.
27-MAR-1996; US-622851.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            W30191;
21-MAY-1998 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB; T76529
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Local Similarity 100.0%;
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97-052324/05.
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/note= "(Claim 4)"
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Pred. No. 8.87e+01;
0; Mismatches 0;
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Best Local (
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                                                                                                                                                                                                            useful as anti-inflammatories in cases of e.g. arthritis and Crohn's disease, also for treatment of atherosclerosis, angiogenesis and tumour growth (or metastasis). The MCP-5 inhibitors can possibly also be used to reduce the damaging effects of chemo- and radio-therapy on myeloid progenitor cells, and to inhibit replication of HIV. MCP-5 can also be used to identify its cognate receptor, while MCP-5 peptides (or the analogues or receptors) are used to modulate MCP-5 activity and to identify MCP-5 agonists and antagonists.
                                                                                                                                        y Match 100.0%;
Local Similarity 100.0%;
hes 6; Conservative
                                                                                                       72 eicadp
                                                                       1 EICADP
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                                                                                                                                        Score 44; DB 28;
Pred. No. 8.87e+01;
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Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

MPsrch\_pp protein - protein database search, using Smith-Waterman algorithm Thu Apr 1 14:04:25 1999; MasPar time 2.73 Seconds 35.522 Million cell updates/sec

Tabular output not generated

Run on:

Description: Perfect Score: Title: >US-08-927-939-8 (1-6) from US08927939.pep

1 EICADP 6

Scoring table: PAM 150 Gap 15

131922 seqs, 16180660 residues

Post-processing: Minimum Match Listing first 0% 50 summaries

Database:

a-geneseq32 1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7 8:part8 9:part9 10:part10 11:part11 12:part12 13:part13 14:part14 15:part15 16:part16 17:part17 18:part18 19:part19 20:part20 21:part21 22:part22 23:part23 24:part24 25:part25 26:part26 27:part27 28:part28 29:part29

Statistics: Mean 13.493; Variance 41.871; scale 0.322

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

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Result	Score	Query Match	Query Match Length	BB	ID	Description	Pred. No.
1	44	100.0	66	24	W13598	Monocyte chemoattract	8.87e+01
2	44	100.0	67	24	W13599	Monocyte chemoattract	8.87e+01
ω	44	100.0	67	14	R73915	Human monocyte chemoa	8.87e+01
4	44	100.0	83	24	W17668	Stem cell mobilising	8.87e+01
տ	44	100.0	68	24	W13597		8.87e+01
σ	44	100.0	69	23	W20062	Human macrophage deri	8.87e+01
7	44	100.0	69	14	R87678	des(2-8) MCP-1.	8.87e+01
80	44	100.0		23	W20061	Human macrophage deri	8.87e+01
9	44	100.0		24	W13596	Monocyte chemoattract	8.87e+01
10	44	100.0		23	W20060	Human macrophage deri	8.87e+01
11	44	100.0		27	W22675	Drol3+ chemokine beta	8.87e+01
12	44	100.0	75	27	W22673	Bac 3 chemokine betal	8.87e+01
13	44	100.0	76	14	R87677	(3-Ala) MCP-1.	8.87e+01
14	44	100.0	76	15	R87680	Monocyte chemotactic	8.87e+01
15	44	100.0	76	v	R28660	MCF.	8.87e+01
16	44	100.0	76	20	W09374	Monocyte chemotactic	8.87e+01
17	44	100.0	76	21	W11131	Mature human monocyte	8.87e+01
18	44	100.0	76	۳	P90292	Peptide from human gl	8.87e+01

509	47 48	46	<b>4</b> 5	44	43	42	41	40	39	38	37	36	35 5	34	ω G	32	31	30	29	28	27	26	25	24	23	22	21	20	19
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89 25 89 14																													
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de	Human MC proprotein. Human beta-chemokine	8	Gln48>Glu.	Phe28>Glu, Glr	o i	eotaxin.	eosinocyte CC	acid sequence	ξ,	ine encode	monocyte	onocyte chemo	Chemoattractant prote	,			Human chemokine betal	Monocyte chemotactic	Macrophage derived ch	Cytokine beta-13 stim	Macrophage-derived ch	m cell mobilising	1 chemokine beta	Droll/2 chemokine bet	ure MCP-1.	2 chemokin	MCP-1	Asp) MCP-	Sense MCP-1.
1.88e+02 1.88e+02		46				٠	. 14e	.146	00	&	8	89	83	. 8	@	œ	83	8	œ	8	87	. 87	89	83	89	89	8.87e+01	.87e+	8.87e+01

## ALIGNMENTS

RESULT pri anti-inflammatory agent

psi Disclosure; Page 5; 27pp; English.

The present sequence represents an analogue, MCP-1 (10-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the CP-1 in the case of MCP-1 is an anti-inflammatory agent to block the sit lacks MCP-1 biological activity and inhibits binding to a MCP-1 creceptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammation sites. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared with 75:1 for prior art mutant 7ND.

Sequence 66 AA; M13598 standard; peptide; 66 AA.
W13598;
W13598;
O7-NOV-1997 (first entry)
Monocyte chemoattractant protein analogue MCP-1 (10-76).
Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; chronic inflammatory disease; arthritis; arteriosclerosis; CA2152141-A. 20-DEC-1996. 19-JUN-1995; 152141. 19-JUN-1995; CA-152141. N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) - lacks MCP-1 activity and inhibits receptor binding, useful as Gong J, Lewis I; WPI; 97-165844/16. Homo sapiens. (LEWI/) LEWIS I. lung disease. allergy;

Query Match

100.0%; Score 44; DΒ 24; Length 66

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anti-inflammatory agent
PT anti-inflammatory agent sequence represents an analogue, which lacks the
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC n-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC providing 50% inhibition of binding at a 25:1 ratio or less, compared
                     PER MES ULT PRES ULT 
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Matches
(SHAR/) SHARMA L R. (VALS/) VAN ALSTYNE D. (SHARMA L R. VAN ALSTYNE D. Sharma LR, Van Alstyne D; WPI; 95-147431/19.

New peptide(s) and corresp. antibodies for the treatment of meningitis - the peptide(s) corresp. to homologous antigenic
                                                                                                                                                                                                                                                                                                                                                              Human monocyte chemoattractant factor hMCP-3; chemokine; vaccine; Human monocyte chemoattractant factor; hMCP-3; chemokine; vaccine; meningitis related homologous antigenic sequence; MRHAS; RV-1; immunoassay; diagnosis; treatment; prophylactic; bacterial;
                                                                                                                                                                                                06-APR-1995.
28-SEP-1994; CA0516.
28-SEP-1993; US-127499.
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R73915 standard; protein;
R73915;
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20-DEC-1996.
19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
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Monocyte chemoattractant protein analogue MCP-1 (11-76).
Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
chronic inflammatory disease; arthritis; arteriosclerosis;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W13599;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 44; DB 24; Length 67 Pred. No. 8.87e+01; 0; Mismatches 0; Indels
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0; 1
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RESULT
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M13597 standard; peptide; 68 W13597; 07-NOV-1997 (first entry)

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PI (SMIK) SMITHKLINE BEECHAM CORP.

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Best Local Similarity 100.0%;
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches
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R73915 is the chemokine Human monocyte chemoattractant factor hMcP-3. It contains the meningitis related antigenic sequences (MRHAS) claimed in R73908 and R73908, which are recognised by a monoclonal antibody from the hybridoma Rubella virus (RV)-1. The claimed MRHAS peptides may be used in immunoassays to diagnose the presence of bacterial and/or viral meningitis agents in a sample, or in prophylactic and therapeutic meningitis treatments. The peptides may also be used as who transition where the presence of the contained manufaction of the peptides may also be used as the transition of the peptides may also be used as the transition of the peptides may also be used as the transition of the peptides may also be used as the transition of the peptides may also be used as the transition of the peptides may also be used as the transition of the peptides may also be used as the transition of the peptides may also be used as the transition of the peptides may also be used as the transition of the peptides may also be used as the transition of the peptides may also be used as the transition of the period of the p
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Haematopoietic cell; parasitic infection; colony stimulating factor; haematoregulator; immune response; bacterial infection; transplant; wound healing; bone marrow; immunosuppression; regeneration; neoplastic disease; viral disease; gene therapy; cytotoxic drug.
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W09715594-A1.
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16-DEC-1997 (first entry)
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24-OCT-1995; US-006051
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6; Conservative
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                                                                                                                                                                                           Score 44; DB 24; L
Pred. No. 8.87e+01;
0; Mismatches 0;
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Pred. No. 8.87e+01;
0; Mismatches 0
                                                                                                                                                                                                                                                                                               Length 68;
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SC Claim 25; Page 84; 106pp; English.

SC Claim 25; Page 84; 106pp; English.

CC (Cys-Cys) subfamily of cytokines has been isolated. MDC and it's considered analogues may be used in the treatment of inflammatory diseases analogues may be used in the treatment of inflammatory diseases site of inflammation. MDC and it's analogues also induce fibroblast confideration having a positive effect in wound healing and angiogenesis. They may prove to be clinically important in the treatment of tumours, by directly or indirectly inhibiting tumour formation. Antibodies directed against MDC and its analogues may be used in the treatment of Crohn's disease, rheumatoid arthritis and atherosclerosis. Probes and/or primers for the identification of MDC and the constitution and analogues and constitution of MDC and the constitution and analogues and constitution and analogues an
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Claim 7: Page 5: 27pp; English.
Claim 7: Page 6: Page 
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Best Local :
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07-JUN-1996; U10114.
07-JUN-1995; US-479620.
16-NOV-1995; US-558658.
(ICOS-) ICOS CORP.
Godiska R. Gray PW;
WPI: 97-052324/05
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W20062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human macrophage derived chemokine analogue.
MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease; rheumatoid arthritis; chemotaxis; fibroblast proliferation; wound healing; angiogenesis; inflammation.
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19-JUN-1995; CA-152141.
(LEWI/) LEWIS I.
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Local Similarity 100.0%;
nes 6; Conservative
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DT 6:1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis

Claim 4; Page 11; 22pp; English.

Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino arcids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
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19-DEC-1996.
07-JUN-1996; U10114.
07-JUN-1995; US-47962
16-NOV-1995; US-55865
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R87678;
                                                                                                                                                                                   11-SEP-1997 (first entry)
Human macrophage derived chemokine analogue.
MDC; macrophage derived chemokine; C-C; Cys-Cys;
rheumatoid arthritis; chemotaxis; fibroblast prol
                                                                                                                                                                                                                                                                                         T 8
W20061 standard; Protein; 69
W20061;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        encoding sequences can be derived from MDC encoding sequences Sequence \ 69\ AA;
                                                                                                      Synthetic.
W09640923-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (DAND ) DANA FARBI
Rollins B, Zhang
WPI; 95-215051/28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-NOV-1994; U12874.
12-NOV-1993; US-152301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          monocyte chemoattractant protein; MCP-1; mutant;
                                                                                                                                                       wound healing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    disulfide_bond
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21-FEB-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                undergoing
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 h 100.0%;
Similarity 100.0%;
6; Conservative
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69 AA;
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                                                                                                                                                          angiogenesis; inflammation
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5..45
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been deleted between these residues"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 44; DB 14;
Pred. No. 8.87e+01;
0; Mismatches C
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Pred. No. 8.87e+01
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                                                                                                                                                                                   Cys; Crohn's di
proliferation;
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                                                                                                                                                                                                              disease;
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Claim 5; Page 5; 27pp; English.

CC The present sequence represents an analogue, MCP-1 (8-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the CC Inflammatory agent biological activity and inhibits binding to a MCP-1 (CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 (CC as it lacks MCP-1 which is an inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration components and other cells e.g. basophils and lymphocytes into components of MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably with 75:1 for prior art mutant versions of MCP-1 e.g. preferably with 75:1 for prior art mutant versions of MCP-1 e.g. preferably compared 69 AA;
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PT Macrophage derived chemokine (MDC) and analogues - used in the PT treatment of inflammatory diseases, MDC antibodies used to treat PT Crohn's disease, rheumatoid arthritis, etc.

Claim 25; Page 84; 106pp; English.

CC A new macrophage derived chemokine, MDC, a member of the C-C (Cys-Cys) subfamily of cytokines has been isolated. MDC and it's canalogues may be used in the treatment of inflammatory diseases (C especially diseases characterised by monocyte chemotaxis towards a company of the company of 
                                                                                                                                                        Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-terminally truncated monocyte chemo:attractant protein-lacks MCP-1 activity and inhibits receptor binding, useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Monocyte chemoattractant protein analogue MCP-1 (8-76). Truncated monocyte chemoattractant protein-1; inhibitor; receptor binding; anti inflammatory; basophil; lymphocyte;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-DEC-1996.
19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
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CA2152141-A.
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                                                                    43 eicadp 48
                                                                                                                                                                                    Local Similarity 100.0%;
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1 EICADP
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97-165844/16.
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                                                                                                                                    Score 44; DB 24; Pred. No. 8.87e+01; 15.00 0;
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Pred.
0; M
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No. 8.87e+01;
                                                                                                                                                                                                                    Length 69
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KW MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease;

KW rheumatoid arthritis; chemotaxis; fibroblast proliferation;

Synthetic.

PN wound healing; anglogenesis; inflammation.

Synthetic.

PN W0940923-A1.

PF 07-UN-1995; US-479620.

PR 16-NOV-1995; US-58858.

PA (ICOS-) ICOS CORP.

PI Godiska R, Gray PW;

DR WP; 97-052324/05.

PT treatment of inflammatory diseases, MDC antibodies used to treat

PT Crohn's disease, rheumatoid arthritis, etc.

CC (Cys 'Cys) subtamily of cytokines has been isolated. MDC and it's

CC analogues may be used in the treatment of inflammatory diseases

CC especially diseases characterised by monocyte chemotaxis towards a

CC canalogues may be used in the treatment of inflammatory diseases

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Best Local S
Matches
asthma and fibrosis

asthma and fibrosis

Example 11; Fig 5; 83pp; English.

Example 11; Fig 5; 83pp; English.

The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) Drol3+ variant, which we used to treat patients deficient in Ck beta10, while a Ck leteration of the control of the control
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-AUG-1997.
23-FEB-1996;
23-FEB-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19-MAR-1998 (first entry)

Drol3+ chemokine betal0 or monocyte chemotactic protein 4 variant. Human; chemokine betal0; Ck betal0; treatment; antagonist; solid tumour; infection; autoimmune disease; asthma; antibody; fibrotic disease; psoriasis; neurodegenerative disease; wound healing; haematopoiesis regulation; gene therapy; chromosome identification; monocyte chemotactic protein 4; leukaemia; MCP-4; Drol3+ variant.
                                                                                                                                                                                                                                                          Polypeptide encoding chemokine beta 4 and protein 4 - useful to treat tumours, autoi
                                                                                                                                                                                                                                                                                                                                                             (HUMA-) HUMAN GENOME SCI INC.
Adams M. Alderson R. Applebaum
Parmelee D. White J;
WPI: 97-435153/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9731098-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           W22675 standard; Protein; 71 W22675;
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W20060;
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Pred. No. 8.87e+01;
0; Mismatches 0
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autoimmune disease, infect
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                                                                                                                                                                                                                                                          infection
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Example 11; Fig 5: 83pp; English.

The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) Bac 3 variant, which can be used to treat patients deficient in Ck beta10, while a Ck beta10 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic cdiseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, regulates haematopoiesis and generates compounds for (ant)agonist activity. The antagonist can be used to compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and compounds. Independent fever and compounds for (ant)agonist activity. The antagonist can be used to screen compounds for (ant)agonist activity. The antagonist can be used to some marrow failure, silicosis, sarcoidosis, hyper-eosinophilic confectious diseases, allergies, prostaglandin dependent fever and compounds. In the confection of 
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                                                                         Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 6; Conservative
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Best Local
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Adams M, Alderson R, Applebaum E,
Parmelee D, White J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-AUG-1997.
23-FEB-1996; U02598.
23-FEB-1996; WO-U025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bac 3 chemokine beta10 or monocyte chemotactic protein 4 variant. Human; chemokine beta10; Ck beta10; treatment; antagonist; solid tumour; infection; autoimmune disease; asthma; antibody; fibrotic disease; psoriasis; neurodegenerative disease; wound healing; haematopoiesis regulation; gene therapy; chromosome identification; monocyte chemotactic protein 4;
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w22673;
19-MAR-1998 (first entry)
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R87677;
21-FEB-1996
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Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28 Tyr by aspartate; (2) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.

The peptides can be used to prevent restenosis, e.g. in patients
Wound treatment using monocyte chemotactic factor - has potent therapeutic effect on skin wounds and ulcers Disclosure; Page 12; 22pp; Japanese.

The invention relates to a new remedy for curing wounds which, instead of comprising a growth factor, comprises a monocyte chemotactic activating factor (MCAF) or its variants or derivatives. The factor has potent effect on skin wounds and ulcers. The present sequence is human MCAF, the activity of which is exemplified as the new remedy. Sequence 76 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-MAR-1996 (first entry)
Monocyte chemotactic activating
monocyte chemotactic activating
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07-NOV-1994; U12874.
12-NOV-1993; US-152301.
(DAND ) DANA FARBER CANCER INST INC.
ROllins B, Zhang YJ;
WPI; 95-215051/28.
                                                                                                                                                                                                                                                           (TORA) TORAY IND INC. Matsushima K, Naruto M; WPI; 95-131181/17.
                                                                                                                                                                                                                                                                                                                                                   23-MAR-1995.
13-SEP-1994; J01512.
13-SEP-1993; JP-227385.
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Best Local :
                                                                                                                                                               05-NOV-1996.
22-OCT-1992; 965678.
22-OCT-1992; US-965678.
27-MAY-1994; US-250958.
(UNMI ) UNIV MICHIGAN.
KUNKel SL, Lyle LR, St.
WPI: 96-505405/50.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page 48 + Page 36; 56pp; English.
An expression plasmid, pHM483, for producing MCF(76) consisting of 76 amino acids was constructed. The prod. can be used for e treating bacterial infectious diseases.

Sequence 76 AA;
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Fukui T, Watsuo N, Yamada M, Yamagishi J;
WPI; 92-398864/48.
N-PSDB; Q30745-46.
Prodn. of polypeptide(s) having monocyte chemotactic activity using expression plasmids with E. coli elements and specific
Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) useful for therapy or diagnosis of restenosis, etc. Disclosure; Column 13-14; 16pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; monocyte chemoattractant protein; antisense; inhibition; mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-NOV-1992.
27-APR-1992; J00550.
09-MAY-1991; JP-135950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_difference
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                                                                                                                                       N-PSDB; T48092
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Local Similarity 100.0%;
hes 6; Conservative
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Pred. No. 8.87e+01;
0; Mismatches (
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Pred. No. 8.87e+01;
0; Mismatches 0
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RESULT
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P90292 standard; peptide;
P90292;
P90792;
17-JAN-1990 (first entry)

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                                                                                                                                                          Radio:labelling neutrophil-activating peptide(s) - for imaging radio:labelling neutrophil-activating peptide(s) - for imaging radioactive agent segment lo; Column 19-20; 15pp; English.

Example 10; Column 19-20; 15pp; English.

Will31 represents mature human monocyte chemoattractant protein-1 (MCP-1). MCP-1 was radionuclide labelled and used in a method for imaging a target site in vivo in an animal. Labelled MCP-1 was allowed to accumulate at a target site (having MCP-1 receptors) in the animal and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys chemokine carrying either lodine-123 or iodine-131 can be used in the method. Especially preferred is neutrophil activating peptide-2 (NAP-2) which recognises interleukin-8 receptors and is labelled with technetium-99m, indium-111, copper-62, rhenium-186 or rhenium-188.

The method can be used for imaging a site of infection, inflammation, neoplasm, atheromatous lesion or restenosis.
                                                                                       Query Match
Best Local
                                                                          Matches
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Best Local
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05-OCT-1992; 956862.
05-OCT-1992; US-956863.
05-OCT-1992; US-956862.
05-OCT-1994; US-235659.
(MLCW) MALLINCKRODT MEDICAL INC.
(UMMI) UNIV MICHIGAN.
KUNKE1 SL, Lyle LR, Strieter RM;
WPI; 97-153541/14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This is the amino acid sequence of the human monocyte chemoattractant protein (MCP-1, a member of the C-C chemokine family. MCP-1 is a potent stimulator of monocyte chemotaxis and is produced by injured vascular smooth cells thus attracting monocytes and macrophages which infiltrate the injured area and release growth factor. This causes proliferation of the vascular smooth cells resulting in restenosis. The gene sequence can be used to generate antisense sequences e.g. T48093-7, which can be used to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or macrophages, or smooth muscle cells, esp. in order to prevent vascular restraction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mature human monocyte chemoattractant protein-1 (MCP-1), MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8; IL-8; neutrophil activating peptide; labelling; maging; targeting; radionuclide; infection; inflammation; neoplasm; atheromatous lesion;
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                                                                                                                                              Sequence
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Local Similarity 100.0%;
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Similarity 100.0%;
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Pred. No.
0; Misma
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Pred. No. 8.87e+01;
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8.87e+01;
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                                                                                                                                                                                                                                                                                                     Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and peptide(s) - is used for inhibiting, treating or imaging areas of vascular restenosis or potential restenosis

To vascular restenosis or potential restenosis

Disclosure; Page 5; 42pp; English.

The sequences given in R5338-99 represent sense and antisense monocyte chemotactic protein-1 (MCP-1) respectively. These oligonucleotides may be labelled with a radionuclide and use therapeutically for the treatment of vascular restenosis.

Radiolabelled antisense MCP-1 compounds may be constructed using high energy alpha or beta emitting isotopes rather than the gamma emitters cutomarily used for diagnostic purposes. Antisense MCP-1 compounds inactivate MCP-1 or inhibit production of MCP-1 so that monocytes are not attracted to the area of vascular injury and proliferation of vascular cells is inhibited.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
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22-OCT-1992; US-965678.
(MLCW ) MALLINCKRODT MI
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                                                                                                                                                                                                                                                                            proliferation
Sequence 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1; radionuclide; vascular restenosis; alpha; beta; emitting is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R53398 standard;
R53398;
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Peptide is
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EICADP
                                                                       eicadp 55
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                                                                                                                                                                        Score 44; DB 10;
Pred. No. 8.87e+01;
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. 8.87e+01;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
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Claim 3; Page 11; 22p; English.

CM Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1; provided that the derivative has not been modified by the cube substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg care; (1) substitution of 28 Tyr by aspartate; (2) substitution of 34 Arg care; (3) substitution of 3-Asp by Ala; and/or (4) deletion of anino acids 2-8. The present sequence is a specifically claimed human MCP-1 cand Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.

CC The peptides can be used to prevent restenosis, e.g. in patients considered according acronary artery angioplasty.
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Best Local
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12-NOV-1993; US-152301.
(DAND) DANA FARBER CANN
ROllins B, Zhang XJ;
WPI; 95-215051/28.
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R87675;
21-FEB-1996 (fir
                                                                                                                                                                    18-MAY-1995.
07-NOV-1994; U12874.
12-NOV-1993; US-152301.
(DAND ) DANA FARBER CANCER INST INC.
ROllins B, Zhang YJ;
WPI; 95-215051/28.
                          Human monocyte chemo-attractant protein-1 (MCP-1) derivs. capable of inhibiting the monocyte chemo-attractant activendogenous MCP-1 and can be used to treat restenosis Claim 5; Page 11; 22pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                             disulfide_bond disulfide_bond
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monocyte chemoattractant
   Monocyte chemoattractant
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monocyte chemoattractant protein; MCP-1; mutant; restenosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-FEB-1996
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Similarity 100.0%;
6; Conservative
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Pred. No. 8.87e+01
0; Mismatches
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mutated
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Example 11; Fig 5; 83pp; English.

Crack present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) Bac 2 variant, which can be used to treat patients deficient in Ck beta10, while a Ck beta10 can be used to reduce excessive levels of Ck beta10 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases. asthma, fibrotic ck diseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, regulates haematopoiesis and generates can tribodies. Labelled Ck beta10 can be used to identify its cognate receptor, while cells expressing the receptor can be used to screen cc compounds for (ant)agonist activity. The antagonist can be used to freat rheumatoid arthritis, autoimmune, chronic inflammatory or confectious diseases, allergies, prostaglandin dependent fever and compounds for inflammation and atherosclerosis. Ck beta10 cbNA can be used to isolate genes encoding similar peptides, in gene therapy and for chromosome identification.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989. The peptides can be used to prevent restenosis, e.g. in patients coronary artery angioplasty.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Polypeptide encoding chemokine beta 4 and monocyte chemotactic protein 4 - useful to treat tumours, autoimmune disease, infec
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23-FEB-1996; W0-U02598.
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23-FEB-1996; W0-U02598.
(HUMA-) HUMAN GENOME SCI INC.
Adams M, Alderson R, Applebaum E
Parmelee D, White J;
WPI; 97-435153/40.
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(MLCW ) MALLINCKRODT MEI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Droll/2 chemokine betal0 or monocyte chemotactic protein 4 variant. Human; chemokine betal0; Ck betal0; treatment; antagonist; solid tumour; infection; autoimmune disease; asthma; antibody; fibrotic disease; psoriasis; neurodegenerative disease; wound healing; haematopoiesis regulation; gene therapy;
asthma and fibrosis
Example 11; Fig 5; 83pp; English.
The present sequence is human chemokine beta10 monocyte chemotactic protein 4 (MCP-4) Drol1/2
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New anti:sense oligo:nucleotide(s)
restenosis - are directed against
monocyte chemotactic protein, opt.
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"C-C" family; chemoattractant cytokine; chemokine; stimulation monocyte; chemotaxis; vascular smooth muscle cell; macrophage; proliferation; restenosis; balloon angioplasty.
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R86859 standard; Protein;
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Drol1/2 chemokine beta10 o
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Pred. No. 8.87e+01;
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Example 11; Fig 5; 83pp; English.

CC The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) Bac 1 variant, which can be used to treat patients deficient in Ck beta10, while a Ck beta10 CC antagonist can be used to reduce excessive levels of Ck beta10 CC antagonist can be used to reduce excessive levels of Ck beta10 CC beta10 can be used to treat leukaemia, solid tumours, chronic or CC opportunistic infections, autoimmune diseases, asthma, fibrotic CC diseases, psoriasis and neurodegenerative diseases. It also CC promotes wound healing, regulates haematopoiesis and generates CC antibodies. Labelled Ck beta10 can be used to identify its cognate creeptor, while cells expressing the receptor can be used to compounds for (ant)agonist activity. The antagonist can be used to infectious diseases, allergies, prostaglandin dependent fever and CC bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can be used to isolate genes encoding similar peptides, in gene therapy
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Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 6; Conservative
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23-FEB-1996;
23-FEB-1996;
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Adams M. Alderson R. Applebaum
Parmelee D. White J;
WPI: 97-435153/40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bac 1 chemokine beta10 or monocyte chemotactic protein 4 variant. Human; chemokine beta10; Ck beta10; treatment; antagonist; solid tumour; infection; autoimmune disease; asthma; antibody; fibrotic disease; psoriasis; neurodegenerative disease; wound healing; haematopoiesis regulation; gene therapy; wound healing; haematopoiesis regulation; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                chromosome identification; monocyte chemotactic protein leukaemia; MCP-4; Bac 1 variant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 W22671;
19-MAR-1998 (first entry)
                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Polypeptide encoding chemokine beta 4 and monocyte chemotactic protein 4 - useful to treat tumours, autoimmune disease, infect
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9731098-A1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bac 1 chemokine beta10 or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      W22671 standard; Protein; 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        53 eicadp 58
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₩0-002598
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                                                                                                                                      AA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score
Pred.
0; M
Score 44; DB 27;
Pred. No. 8.87e+01;
0; Mismatches 0
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No. 8.87e+01;
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   0;
                                                                 Length 82;
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   Indels
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   Gaps
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PA (SMIX) SMITHKLINE SEECHAM CORP.

II. H. Pelus L. White JR;

DR WPI; 97-258956/23.

DR WPI; 97-258956/23.

PT en new chemokine(s) able to mobilise stem cells - used where

PT increased levels of haematopoietic cells are required, e.g. to

PT increased levels of haematopoietic cells are required, e.g. to

PT increase resistance to infection

PS Claim 7; Page 11-12; 24pp; English.

CC of mobilising stem cells. The chemokine can be used therapeutically to

CC improve stem cell mobilisation, optionally together with a colony

CC stimulating factor or other haematoregulatory agent. It can be used

CC wherever an increased level of haematopoietic cells is needed, e.g. to

CC increase the immune response to chronic infection (particularly

CC batterial or parasitic), to promote wound healing, in (transplant)

CC patients with reduced bone marrow function as a result of

CI immunosuppressive treatment or disease, and to provide more rapid

CC diseases. The induced stem cells may be harvested for subsequent return

CC to deliver a selected gene product (gene therapy). The cells may be

CC cradministered with a cytotoxic func
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches
                                                                                                         07-JUN-1995;
07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                              01-APR-1998 (first entry)
01-APR-1998 (first entry)
Macrophage-derived chemokine.
Macrophage-derived chemokine; MDC; antibody; binding modulator; therapy;
arthritis; inflammatory disorder; cancer; Crohn's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Stem cell mobilising chemokine CKbeta-10.

Haematopoietic cell; parasitic infection; colony stimulating factor; haematorgulator; immune response; bacterial infection; transplant; wound healing; bone marrow; immunosuppression; regeneration; neoplastic disease; viral disease; gene therapy; cytotoxic drug.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic. W09715594-A1.
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W17665 standard; peptide;
                                                                                                                                                                                                       US5688927-A.
                                                                                                                                                                                                                                                                Protein
                                                                                                                                                                                                                                                                                                                       Peptide
                                                                                                                                                                                                                                                                                                                                                     Key
                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         W40811;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W40811 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      co-administered with a cytotoxic drug. Sequence 82 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-OCT-1996; U16959.
24-OCT-1995; US-006051
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                                                                                                                                                                            .8-NOV-1997
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Local Similarity 100.0%;
nes 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          56 eicadp 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         56
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                                                                                 480449.
US-480449.
CORP.
                                                                                                                                                                                                                               /note=
25..93
/note=
                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                        "leader peptide"
                                                                                                                                                                                                                                  "mature protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             82 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 44; DB 24;
Pred. No. 8.87e+01;
0; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CKbeta-10, which is capable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 82
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
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(ICOS-) ICOS CORP. Godiska R, Gray PW; WPI; 98-008038/01. N-PSDB; T99233.

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RESULT
ACC WANTED TO SEE THE STATE OF SECOND SET TO SECOND SET TO SECOND SECOND
                                                                                                                                                                                                                          W07604 shows human chemokine beta-13 (Ck-beta-13), a member of the CC (Cys-Cys) branch of intercrine chemokines. Ck-beta-13 is useful for treating patients lacking chemokine beta-13 by gene therapy. Ck-beta-13 cc stimulates the invasion and activation of host defence cells making it useful for treating solid tumours, e.g. Kaposi's sarcoma, and for C enhancing resistance to acute and chronic infections, e.g. mycobacterial infections. The chemokine induces chemotactic migration of monocytes, neutrophils, eosinophils, T lymphocytes, basophils and fibroblasts to C sites where they are needed. Eosinophils may be attracted to the site CC of a parasitic infection to kill parasite larvae. Ck-beta-13 also C recruits debris-clearing and connective tissue promoting inflammatory CC cells, and is therefore used to stimulate wound healing, prevent CC cells, and treat liver cirrhosis, osteoarthritis and pulmonary CC fibrosis. Ck-beta-13 may also be used for treating leukaemia, T-cell mediated autoimmune diseases, psoriasis, to regulate haematopoiesis and to inhibit anglogenesis. Ck-beta-13 antagonists inhibit activity of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δÃ
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Best Local Similarity
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Claim 3: Column 21-24; 22pp; English.
This sequence represents the macrophage-derived chemokine (MDC). This
protein is used to produce the antibodies of the invention. The
antibodies are useful for purifying MDC polypeptides, for detecting
endogenous MDC in a host, and for modulating binding of MDC to its
receptors. The DNA encoding this sequence can be used for identifying and
isolating non-human MDC homologues. The MDC protein is potentially useful
for treating inflammatory disorders, cancer, etc. Antagonists of MDC can
be used for treating Crohn's disease, arthritis, atherosclerosis etc.
                                                                                                       chemokine which is useful for treating certain autoimmune diseases, atherosclerosis, chronic inflammatory and infective diseases, allergic reactions, rheumatoid arthritis, silicosis and bone marrow failure. Sequence 93 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human chemokine beta-13 - useful for treating solid tumours, leukeemia, infections, autoimmune disease, fibrotic disorders, psoriasis, etc.
Claim 10; Page 46; 58pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  T cell; basophil; gene therapy; tumour; cancer; neoplasia; infection; Kaposi's sarcoma; cirrhosis; osteoarthritis; pulmonary fibrosis; leukaemia; autoimmune disease; psoriasis; inflammation; allergy; rheumatoid arthritis; silicosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cytokine beta-13 stimulates migration/activation of immune cells. Chemokine beta 13; Ck-beta-13; C-C; Cys-Cys subfamily; immune cell; Chemokine beta 13; Ck-beta-13; C-C; Cys-Cys subfamily; immune cell; Chemokine beta 13; Ck-beta-13; C-C; Cys-Cys subfamily; immune cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 97-043143/04.
N-PSDB; T44026.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-JUN-1995; WO-U07294.
06-JUN-1995; WO-U07294.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             03-SEP-1997 (first entry)
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W07604 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (SMIK ) SMITHKLINE BEECHAM CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          / Match
Local Similarity 100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note= "given as encoded
100.0%;
Score 44;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 44; DB 27; Ler
Pred. No. 8.87e+01;
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                                 DB 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         by CAC
                             Length
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Matches
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07-JUN-1995; US-479650.
16-NOV-1995; US-558658.
(ICOS-) ICOS CORP.
GOdiska R, Gray PW;
WPI: 97-052324/05.
N-PSDB; T76529.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (Cys-Cys) subfamily of cytokines has been isolated. MDC and it's analogues may be used in the treatment of inflammatory diseases especially diseases characterised by monocyte chemotaxis towards a site of inflammation. MDC and it's analogues also induce fibroblast proliferation having a positive effect in wound healing and angiogenesis. They may prove to be clinically important in the treatment of tumours, by directly or indirectly inhibiting tumour formation. Antibodies directed against MDC and its analogues may be used in the treatment of Crohn's disease, rheumatoid arthritis and atherosclerosis. Probes and/or primers for the identification of MDC encoding sequences can be derived from MDC encoding sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            W20058
W20058
                                                                                                                                                                                                                                                                                                                                                Monocyte chemotactic protein 5.
MCP-5; human; macrophage; chemokine; inhibitor; antiinflammatory; atherosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        treatment of inflammatory diseases, MDC antibodies used to to Crohn's disease, rheumatoid arthritis, etc. Claim 1; Page 73; 106pp; English.

A new macrophage derived chemokine, MDC, a member of the C-C
                                                                                Protein
                                                                                                                                                                                                                                        Homo
                                                                                                                                                                                                                                                                                                            Crohn's disease; arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                W30191 standard; Protein; W30191;
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MDC; macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease; rheumatoid arthritis; chemotaxis; fibroblast proliferation;
                                                                                                                                                                                                    Key
                                                                                                                                                                                                                                                                            therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-MAY-1998 (first entry)
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                                                                                                                                                        Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
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Local Similarity 100.0%;
nes 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                74 eicadp 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            74 eicadp 79
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                                                                                                                                                                                                                                                                        diagnosis; medical
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                                                                                                                                                                                            Location/Qualifiers
/label= Mat_protein
/note= "(Claim 4)"
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                                                                                                            Sig_peptide
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                                                                                                                                                                                                                                                                                                            angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 44; DB 23;
Pred. No. 8.87e+01;
0; Mismatches 0
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Claim 1; Page 36-37; 47pp; English.

CC This polypeptide comprises human macrophage-derived

CC monocyte chemotactic protein-5 (MCP-5), a novel C-C chemokine.

CC its amino acid sequence was deduced from a cDNA clone (see

CC 11brary. A claimed method for producing MCP-5 comprises

CC ulturing a host cell that is stably transformed or transfected

CC with MCP-5 polynucleotide. Also claimed is a hybridoma that

CC produces a monoclonal antibody (MAb) that is specifically

CC reactive with the mature MCP-5. MCP-5 (or its analogues and

CC fragments) is used to enhance the immune response in cases of

CC wounds or infections, while its inhibitors (e.g. the MAb) are

CC useful as anti-inflammatories in cases of e.g. arthritis and

CC crohm's disease, also for treatment of atherosclerosis,

CC angiogenesis and tumour growth (or metastasis). The MCP-5

CC inhibitors can possibly also be used to reduce the damaging effects

CC inhibitors can possibly also be used to reduce the damaging effects

CC inhibit replication of HIV. MCP-5 can also be used to identify

CC its cognate receptor, while MCP-5 peptides (or the analogues or

CC receptors) are used to modulate MCP-5 activity and to identify

CC receptors are used to modulate MCP-5 activity and to identify
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Best Local :
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26-MAR-1997; U04898.
27-MAR-1996; US-622851.
(ICOS-) ICOS CORP.
GOdiska R, Gray PW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-MAR-1998 (first entry)
Human chemokine betal0 or monocyte chemotactic protein 4.
Human; chemokine betal0; Ck betal0; treatment; antagonist;
solid tumour; infection; autoimmune disease; asthma; antibody;
fibrotic disease; psoriasis; neurodegenerative disease;
wound healing; haematopoiesis regulation; gene therapy;
chromosome identification; monocyte chemotactic protein 4;
Polypeptide encoding chemokine beta 4 and monocyte chemotactic protein 4 - useful to treat tumours, autoimmune disease, infect asthma and fibrosis claim 1; Fig 2; 83pp; English.
                                                                                                                                                                                 23-FEB-1996; U02598.
23-FEB-1996; WO-U02598.
(HUMA-) HUMAN GENOME SCI INC.
Adams M. Alderson R. Applebaum
Parmelee D. White J;
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W22670;
19-MAR-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  chromosome identi
leukaemia; MCP-4.
                                                                                                                          WPI; 97-435153/40.
N-PSDB; T85029.
                                                                                                                                                                                                                                                                                                               28-AUG-1997.
23-FEB-1996;
                                                                                                                                                                                                                                                                                                                                                                                WO9731098-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                       Peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo
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WPI; 97-489645/45.
N-PSDB; T90880.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO9735982-A2.
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larity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                          /label= mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /label= sig_peptide
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Pred. No. 8.87e+01;
0; Mismatches 0;
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                                                                infection,
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New chemokine Ck/beta)-4 and -10 genes and polypeptide(s) - useful treat, e.g. leukaemia, solid tumours and auto-immune diseases claim 19; Fig 2; 53pg; English.

Claim 19; Fig 2; 53pg; English.

A novel human chemokine, Ck beta-10 (R93087), was identified as the product of a cDNA clone (717050) isolated from a 9-wk early human tissue cDNA library. The protein is structurally related to the chemokine family. Recombinant Ck beta-10 can be obtd. by incorporating the cDNA into a vector and expression of the protein in e.g. E. coli, COS or Sf9 cells. Ck beta-10 can be used to treat solid tumours, chronic infections, psoriasis, asthma and allergy, to regulate haematopoiesis, promote wound healing, and to inhibit angiogenesis. It can also be used to inhibit bone marrow stem cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.0%;
Matches 6; Conservative
      Matches
                                                              Query Match
                                                                                                                            angiogenesis.
colony formn. o
Sequence 98 l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-FEB-1996.
23-AUG-1994;
23-AUG-1994;
08-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chemokine beta-10; chemokine beta-4; Ck beta-10; Ck beta-4; cytokine; leukaemia; tumour; cancer; autoimmune disease; ps asthma; allergy; wound healing; diagnosis; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 96-151145/15.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R93087 standard; Protein; 98 R93087;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       syndrome, lung infl
be used to isolate
and for chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           healing, regulates haematopoiesis and generates antibodies. Labelled Ck betalo can be used to identify its cognate receptor, while cells expressing the receptor can be used to screen compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic syndrome, lung inflammation and atherosclerosis. Ck betalo CDNA can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4), which can be used to treat patients deficient in Ck beta10, while a Ck beta10 antagonist can be used to reduce excessive levels of Ck beta10. Ck beta10 can be used to reduce excessive levels of Ck beta10. Ck beta10 can be infections, autoimmune diseases, asthma, fibrotic diseases, psoriasis and neurodegenerative diseases. It also promotes wound
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9605856-A1.
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Adams MD, Li H;
Match 100.0%;
Local Similarity 100.0%;
les 6; Conservative
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                                                                                                                            during chemotherapy.
AA;
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/label= Mat_protein
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Score 44; DB 17;
Pred. No. 8.87e+01;
0; Mismatches 0
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No. 8.87e+01
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Best Local
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27-APR-1992; J00550.
09-MAY-1991; JP-135950.
(DAIN ) DAINIPPON PHARM CO LTD.
FUKULI T, MACESHO N, Yamada M, Yam
WPI; 92-39886448.
N-PSDB; Q30748.
                                                                                                         Disclosure; Page 43-44; 55pp; English.
An expression plasmid, pHMC076 for producing MCF(76) consisting of 76 amino acids was constructed. DNA encoding MCF(76) was prepd. using a recombinant plasmid pHMCF7.

Sequence 99 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Purified heparanases, prepared under reducing conditions and activated with transglutaminase, are given in R70786-804. Most are prepared by reverse transcription of mRNA from activated human leukocytes, then cloning of the cDNA into pVL1392 baculovirus vector, and expression in Sf9 cells in the presence of reduced glutathione and dithiothreitol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       T 34
R28663 standard;
R28663;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Screening for cpds. with anti-heparanase activity - by inhibition of heparin or heparan sulphate degradation, potentially useful for treating arthritis, restenosis, Claim 13; Page 49; 60pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (UPJO ) UPJOHN CO. Hoogwerf AJ, Ledbe WPI; 95-082239/11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09-FEB-1995.
26-JUL-1994; U08207.
29-JUL-1993; US-099866.
13-OCT-1993; US-136117.
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                                                                                                                                                                                                                                                                                              E.coli strains
                                                                                                                                                                                                                                                                                                                            Prodn. of polypeptide(s) having monocyte chemotactic activity using expression plasmids with E. coli elements and specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens. WO9504158-A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
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Local Similarity 100.0%;
       Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
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No. 8.87e+01;
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   DB 5; L
8.87e+01;
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ome binding site;
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25-JUL-1989;
30-MAR-1989; 330446.
30-MAR-1989; US-330446.
(USSH) US Dept. Health ar
Yoshimura T, Robinson EA.
WPI; 89-300683/41.
Human derived monocyte chemo-attractant peptide prods. - obtd. from human glioma cell line U-105MG or peripheral blood mononuclear leukocytes. Disclosure; fig 2; 66pp; English.

This is a human-derived monoyte chemo-attractant peptide (MCP-1) sequence MCP-1 exhibits optimal chemotactic activity at a concn. of 1nM and has a mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg inflammatory disease, or for the control of neoplasms by accumulation of monocytes at the site of the infection. The corresp. DNA is obtd. by chemical synthesis, by screening reverse trascripts of mRNA from purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JT 36
P95387 standard; protein;
P95387;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             screening for cpds. with anti-heparanase activity - by detecti inhibition of heparin or heparan sulphate degradation, potentially useful for treating arthritis, restenosis, cancer. Claim 13; Page 50; 60pp; English.

Purified heparanases, prepared under reducing conditions and activated with transglutaminase, are given in R70786-801. Mos are prepared by reverse transcription of mRNA from activated heukocytes, then cloning of the cDNA into pVL1392 baculovirus vector, and expression in Sf9 cells in the presence of reduced glutathione and dithiothreitol.
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Hoogwerf AJ, Ledb
WPI; 95-082239/11.
                                                                                                                                                                                                                                                                                                                                                                                                            N-PSDB; N91337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-JUL-1994; U08207.
29-JUL-1993; US-099866.
13-OCT-1993; US-136117.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
WO9504158-A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-JUL-1989 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-FEB-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 73 eicadp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity 100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           --
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           chemo-attractant peptide-1.
chemo-attractant peptide; inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers 24..99
/product=MCP-1
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Appella
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Pred. No. 8.87e+01;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PT New peptide(s) and corresp. antibodies for the treatment of preprint of the peptide(s) corresp. to homologous antigenic sites on bacterial and viral agents and on chemokine(s), used for preprint of the preventing meningitis and on chemokine (s), used for preventing and preventing meningitis.

Criaim 47: Fig 8/10: 98pp: English.

Criaim 47:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 6; Conservative
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28-SEP-1993; US-127499.
(SHARV) SHARWA L R.
(VALS/) VAN ALSTYNE D.
Sharma LR, Van Alstyne D;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-NOV-1992 (first entry)
Cytokine encoded by clone |
Cytokine; plasmid pSE1; HT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              T 38
R24353 standard; Protein; 109
R24353;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R/3914;
05-DEC-1995 (first entry)
Human monocyte chemoattractant factor hMCP-1.
Human monocyte chemoattractant factor; hMCP-1; chemokine; vaccine;
Human monocyte chemoattractant factor; hMCP-1; chemokine; vaccine;
meningitis related homologous antigenic sequence; MRHAS; RV-1;
meningitis related homologous antigenic sequence; MRHAS; RV-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cytokine encoded by clone NC28.
Cytokine; plasmid pSE1; HTLV-1; human T-lymphocyte virus; mouse; alpha-globin; E.coli cloning vector; ss.
    EP-488900-A.
                                                                                                                                                                                                 modified_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                     peptide
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WO9509232-A.
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Local Similarity 100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 EICADP 6
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                                                                                                                                                                                            /label= cytokine 39..41
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1..33
                                                                                         /label= N-glycosylation
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                                                                                                                                                                                                                                                                                                                                                                                    /label= signal
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Pred. No. 8.87e+01;
0; Mismatches 0
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Pred. No. 8.87e+01
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                  potential initiation sites"
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Best Local Similarity 100.0%;
Matches 6; Conservative
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Best Local Similarity 100.0%;
Matches 6; Conservative
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06-MAY-1996; U06363.
07-JUN-1995; US-487942.
(GEMY) GENETICS INST INC.
Graham J, Lin L;
W44721 standard; Protein; 82
W44721;
05-JUN-1998 (first entry)
Amino acid sequence of the se
                                                                                                                                                                                                                                                    Claim 14; Page 36-38; 54pp; English.

W1992 represents human calcium activated neutral protease (CANP).

This protein was found to have an area of high homology with an interleukin-1 receptor (IL-1-R) intracellular ligand (encoded by cDNA clone 14w, see T71218) and thus will display some of the same properties of this protein. IL-1-R intracellular ligand proteins are used to screen for agents (e.g. antibodies) that are capable of inhibiting or blocking the binding of an IL-1-R intracellular ligand to the intracellular domain of IL-1-R, i.e. inhibitors of IL-1 activity. Such agents can be used to treat inflammatory conditions. Sequence 700 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27-AUG-1997 (first entry)
Human CAP used to identify inhibitors of interleukin-1 activity.
IL; interleukin; receptor; ligand; screening assay; inhibitor;
IL-1 mediated response; inflammation; inflammatory; antibody; intracellular domain; CANP; calcium activated neutral protease.
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This protein is encoded by the NC28 clone isolated from peripheral blood mononuclear cells stimulated with phorbol 2-myristate-3-acetate (see Q25259). The mature protein is claimed. It can be N-terminally deleted such that the mature protein starts at Val 3 or at Lys 19. The leader sequence is active in animal cells. See Q25258-Q25262.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 97-052315/05.
Interleukin-1 receptor intracellular ligand proteins and related DNA used to identify inhibitors of the proteins for treatment of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens. W09640907-A1.
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(SNFI ) SANOFI SA.
Caput D. Ferrara P. Miloux B. Minty A.
WPI: 92-185765/23.
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29-NOV-1990; FR-014961.
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                                                                                                                                         80 eicadp 85
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                                                                                                                       1 EICADP
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                                                                                                                                                                                       Score 44; DB 23; L
Pred. No. 8.87e+01;
0; Mismatches 0;
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Pred. No. 8.87e+01;
0; Mismatches 0; Indels
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protein encoded by clone AM262\_11.

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Best Local
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inflammation
Claim 2; Pages 27-28; 45pp; Japanese.
Claim 2; Pages 27-28; 45pp; Japanese.
The present sequence is the human eosinocyte, CC type
chemokine, eotaxin, which increases calcium flux in human
eosinocytes and is a human analogue of guinea pig eotaxin. The
eotaxin was derived from human small intestine, and is a specific
agonist for human CC type chemokine receptor 3. It may be used to
screen potential agonists and antagonists, which may be useful as
anti-inflammatories. An anti-eotaxin antibody may be used in
diagnostic assays for eotaxin, which is implicated in inflammatory

Aircrafts on asthma, other allergies and atopic skin
                                                                                                                                                                                                                                                                                                                                                                                                                                    (SHIO ) SHIONOGI & CO LTD.
Harada S, Kitaura M, Nakajima
WPI; 97-226168/20.
N-PSDB; T62944.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; eosinocyte; CC type; chemokine; eotaxin; calcium; skin; small intestine; agonist; screening; antagonist; inflammation; antibody; diagnosis; assay; disorder; asthma; allergy; atopic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-DEC-1997 (first entry)
Human eosinocyte CC type chemokine eotaxin.
Human; eosinocyte; CC type; chemokine; eota
small intestine; agonist; screening; antago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          secreted protein encoded by clone AM282_11. The clone was isolated from a human fetal kidney cDNA library using probe V05756. AM262_11 has some identity with the human eotaxin precursor gene and protein. As such, the AM262_11 protein may share some activity. The nucleic acid can be used for expression of recombinant proteins, as tissue, molecular weight or chromosome markers, indicators of genetic disorders and sources of probes and primers. They can also be used to generate anti-protein or anti-DNA antibodies and as components of interaction irrap assays etc. The protein is useful for raising antibodies, as immunoassay reagents and as nutritional supplements. The protein may possibly have any of a great variety of therapeutic activities.
                                                                                                                                                                                                                                                                                                                                                                   Human CC chemokine (eotaxin) active on eosinocytes - useful for screening for eotaxin (ant)agonist(s), e.g. for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-APR-1997.
01-OCT-1996; J02851.
28-FEB-1996; JP-041965.
05-OCT-1995; JP-259067.
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W14990 standard; Protein;
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W09712914-A1.
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BOWMAN M, EVANS C, Jacobs K, Lavallie ER, McCly
Merberg D, Racie LA, Spaulding V, Treacy M;

WPI: 98-042191/04
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07-JUN-1996;
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EICADP
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83.3%;
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Pred. No. 1.14e+02;
1; Mismatches 0
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PT New isolated human eotaxin gene - used to develop prods. for the PT diagnosis and treatment of e.g. inflammation, allergies, auto-immune PT diagnosis and treatment of e.g. inflammation, allergies, auto-immune PT diagnosis and treatment of e.g. inflammation, allergies, auto-immune PT diagnosis and treatment of e.g. inflammation, allergies, auto-immune PT diagnosis and treatment of Eccumulation and/or attracting eosinophils (including chemotaxis). CC It can be used to develop products for the diagnosis, prevention or CC treatment of hE associated diseases or conditions. The products can be used to treat inflammatory or allergic diseases and conditions, concluding respiratory allergic diseases (e.g. asthma, allergic rainitis, hypersensitivity lung diseases or pneumonitis, concluding respiratory allergic diseases (e.g. anthylosing continitis, systemic lung diseases (ILD) such as CC didopathic pneumonia, interstitial lung diseases (ILD) such as CC arthritis, systemic sclerosis, Siporgen's syndrome, polymyositis CC responses, drug allergies (e.g. to penicillin and cephalosporins), CC dermatomyositis), systemic anaphylaxis or hypersensitivity contact dermatitis, selections, atopic dermatitis, allergic contact dermatitis, cultiple contact dermatitis, contact dermati
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KW accumulation; attraction; chemotaxis; diagnosis; prevention;

KW treatment; disease; inflammation; allergy; asthma; rhinitis;

KW treatment; disease; inflammation; allergy; asthma; rhinitis;

KW hypersensitivity; lung; pneumonia; Loeffler's; syndrome;

KW interstitial; ILD; idiopathic pulmonary fibrosis;

KW rheumatoid arthritis; systemic; lupus erythematosus; SLE;

KW ankylosing spondylitis; sclerosis; Sjorgen's; polymyositis;

KW dermatomyositis; bowel; anaphylaxis; drug; penicillin;

KW dermatomyositis; bowel; anaphylaxis; drug; penicillin;

KW dermatomyositis; bowel; anaphylaxis; drug; penicillin;

KW dermatomyositis; scleroderma; psoriasis; dermatosis;

KW wasculitis; eczema; atopic; urticaria; necrotising; cutaneous;

KW dermatitis; myositis; fascitis; multiple sclerosis;

KW wasculitis; myositis; fascitis; multiple sclerosis;

KW wasculitis; myositis; Bechet's; graft; rejection;

KW utoimmune; thyroiditis; Bechet's; graft; rejection;

KW transplantation; reperfusion injury; atherosclerosis;

KW belkocyte infiltration; reperfusion injury; atherosclerosis;

Mallitration; allograft; graft versus host; cancer;

KW hematologic malignancy; septic; endotoxic; shock;

Mallitration; horarus chamanosuppression; immunodeficiency;

KW bolymyositis; dermatomyositis; immunosuppression; immunodeficiency;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
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Best Local
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21-JUN-1996; U10723.
23-JUN-1995; US-494093.
(LEUK-) LEUKOSITE INC.
MacKay C, Newman W, Po
WPI; 97-087387/08.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ponath PD,
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Pred. No. 1.14e+02;
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Bechet's
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Best Local
R38940 standard;
R38940;
23-NOV-1993 (fir
                                                                                                                                                                                                                         Nucleotide and protein sequences for human PANEC-1 and PANEC-2 - useful in diagnosis and therapy of pancreatic diseases Claim 8; Paage 28-29; 43pp; English.

The sequences given in W00667-68 represent pancreas-derived chemokin PANEC-1 and PANEC-2. These chemokines are highly expressed and specifically expressed in the pancreas and may therefore be used in diagnostic assays based on chemokine production in cases of inflammation or disease affecting the pancreas. These assays allow the early and accurate diagnosis of pancreatic disorders, and can differentiate between invasive diseases and genetic syndromes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene.
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            inflammatory responses, including reperfusion injury, atherosclerosis, certain haematologic malignancies, cytokine induced toxicity (e.g. septic or endotoxic shock), polymyositis, dermatomyositis, immunosuppression (e.g. in individuals with immunodeficiency syndromes such as AIDS, undergoing radiation therapy, chemotherapy therapy for autoimmune disease or other drug therapy, such as corticosteroid therapy, which causes immunosuppression), immunosuppression due to (e.g. congenital) deficiency (e.g in ectaxin) or infectious diseases such as parasitic diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                  17-FEB-1995; US-390740.
(INCY-) INCYTE PHARM IN
Bandman O, Coleman R,
WPI; 96-393398/39.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             22-AUG-1996.
16-FEB-1996; U02225
17-FEB-1995; US-390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens. W09625497-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pancreas expressed chemokine-1.
Pancreas-derived chemokine; PANEC-1; PANEC-2; diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Degenerate primers based on the guinea pig eotaxin amino acid sequence were used for the reverse transcriptase polymerase chain reaction (RT-PCR) amplification of RNA isolated from inflamed, eosinophilic lung tissue obtained from Balb/c mice sensitised to ovalbumin. The amplification product was used as a probe to scree a human genomic library in vector EMBL3 SP6/T7 to obtain the hE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rejection (e.g in transplantation) including allograft rejection or graft versus host disease and cancers with leukocyte infiltration of the skin or organs. The products can also be used to treat other diseases or conditions requiring the inhibition of undesirable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            T 43
W00667 standard; Protein; 97 AA.
                                                                                                                                                                                                                                                                                                                                                                                                     N-PSDB; T33527.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             inflammation; disease; cancer.
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ilarity 83.3%;
Conservative
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                                 Protein; 69
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No.
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Best Local (
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Example 15; Page 55; 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-
lalpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
utility as stem cell protective agents. The analogues may be used
in tumour therapy, psoriasis or other diseases involving hyper-
proliferative stem cells.

Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with
Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha
analogues correspond to the pref. LD78 analogues.
                                                                                                          providing better tissue penetration

Example 1; Page 48-50; 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-
lalpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
utility as stem cell protective agents. The analogues may be used
in tumour therapy, psoriasis or other diseases involving hyper-
proliferative stem cells.
                                                                                                                                                                                                                                                                                                                                                                          WPI; 93-227322/28.

Protein with stem cell inhibition activity, e.g. LD78 or MlP-1 alpha - unable to form stable multimer higher than dodecamer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S, Czaplewski LG, Edwards F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LD78 Gln48>Glu.
SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha; macrophage inflammatory protein; multimer; tumour therapy;
                              Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha analogues correspond to the pref. LD78 analogues.
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23-DEC-1991; GB-027319.
23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S, Czaplewski LG, Edwards F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hunter MG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        W09313206
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        psoriasis; hyperproliferation.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hunter MG;
WPI; 93-227322/28.
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SCI; stem cell :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                48 evcadp 53
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
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1.46e+02;
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Best Local :
                                                                                                                                                                                                                                             22-JAN-1998;
15-UUL-1997; UI2349.
15-UUL-1996; US-683655.
(INCY-) INCYTE PHARM INC.
AU-Young J. Coleman R, Hillman JL;
WPI; 98-110529/10.
N-PSDB; V09218.
New human monocyte chemotactic proprotein - has homology to CC chemokine(s) useful for identifying agent for treating auto-immune diseases or allergic responses Claim 1; Pages 38-39; S3pp; English.

The is a human monocyte chemotactic proprotein sequence. Its cDNA was first identified in Incyte clone 965517 from a meast cDNA library. Antisense nucleotides can be used to control human MCPP expression especially where it may lead to inappropriate monocyte or macrophage activity causing damage associated with allergic responses to organs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human MC proprotein.

Human monocyte chemotactic proprotein; MCCP; Incyte clone; allergy; macrophage; diagnostic assay; body fluid; lung; biopsy; autoimmune disease; AIDS; asthma; rheumatoid arthritis; NIDDM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Purified heparanases, prepared under reducing conditions and activated with transglutaminase, are given in R70786-804. Most are prepared by reverse transcription of mRNA from activated human leukocytes, then cloning of the cDNA into pVL1392 baculovirus vector, and expression in Sf9 cells in the presence of reduced glutathione and dithiothreitol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-FEB-1995.
26-JUL-1994; U08207.
29-JUL-1993; US-099866.
13-OCT-1993; US-136117.
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Chemoattractant MCP-2,
Chemoattractant, MCP-2; heparanase; heparin; heparan sulfate;
arthritis; restenosis; cancer; wound healing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R70804
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Hoogwerf AJ, Ledbetter
WPI; 95-082239/11.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       breast cancer; bladder.
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Pred. No.
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Pred. No. 1.46e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MCP-2. Its sequence was deduced from a claimed cDNA clone (see T91023) isolated from a human peripheral blood mononuclear cell interary. Also claimed are: (1) a host cell, preferably mammalian, transformed with a H1306 polynuclectide operably linked to an expression control sequence; (2) a recombinantly produced to an expression control sequence; (3) a recombinantly produced H1305 protein; and (3) a composition comprising an antibody which specifically reacts with the H1305 protein. The H1305 protein may be used in a composition for the treatment of a mammalian subject (claimed). It is thought to have chemokine activities and may therefore have an effect on chemotaxis or migration of blood cells. It may be useful for inhibiting viral replication, including replication of HIV, and may also be used for treatment of specifically react with H1305. Such antibodies may be used for therapy of certain tumours as they are capable of blocking the ligand binding of the H1305 protein or may promote clearance of the protein from the patient.
                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LT 48
W26655
                                                                                         W23643;
08-JAN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New human beta-chemokine, H1305 and corresponding DNA - used i treatment of viral infection, e.g. HIV, and in wound healing Claim 1; Page 12-13; 21pp; English.

This protein comprises human beta-chemokine H1305, also known
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GEMY) GENETICS INST IN Lavallie ER, MCCOY JM, WPI; 97-372866/34.
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                                                                                                                                               W23643 standard; Protein;
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WO9725427-A1.
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Human beta-chemokine H1305 (MCP-2)
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                                                                                                                                                                                                                                                                                                                      83 evcadp
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llarity 83.3%;
Conservative
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83.3%;
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Pred. No.
1; Misma
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Pred. No. 1.46e+02;
1; Mismatches 0
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Human dendritic cell tactin. Human dendritic cell tactin; DC haematopoietic cell; rheumatoid

tactin; C-C chemokine
arthritis; psoriasis;

atopic

family; dendrite;

isthma; antagonist; agonist; gene therapy; transgenic animal.

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Best Local Similarity
Matches 5; Conser
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29-JUN-1995.
28-JUN-1994; U07256.
22-DEC-1993; US-173209.
08-MAR 1994; US-208339.
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14-AUG-1997.
06-FEB-1997; U01247.
09-FEB-1996; US-59923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     disease, infections, cancer etc., and in vaccines (laim 2; Page 53; 62pp; English.

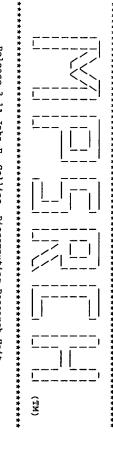
This is the sequence of human dendritic cell (DC) tactin, a new member of the C-C chemokine family. DC tactin is a chemokine which attracts or activates haematopoietic cells and possibly also neural cells. Antagonists of the chemokine, such as antibodies, are used to regulate and/or prevent autoimmunity, tissue rejection and undesired response to antigens (e.g. in cases of rheumatoid arthritis, psoriasis, atopic dermatitis, asthma etc.), while agonists (such as DC tactin itself) are used to regulate and/or treat infectious disease, response or cancer, by attracting haematopoietic cells to dendritic cells, also as vaccine adjuvant for immunocompromised subjects. The cDNA encoding DC tactin is useful in gene therapy and generation of transgenic
cDNA encoding human macrophage inflammatory proteins -3, -4 and -1-gamma - used in immuno-regulation includding inflammatory activity, haematopoiesis, treatment of psoriasis or solid tumour Claim 12; Figure 2; 60pp; English.

Human macrophage inflammatory protein-4 (MIP-4) is used in therapeutic and diagnostic applications for detecting and treating infections, cancer, inflammation, myelopoietic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                I 50
R76127 standard; Protein;
R76127;
02-DEC-1995 (first entry)
                                                                                                                                                                                                                                  Adams MD, Li H, WPI; 95-240404/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Primate dendritic cell tactin, a chemo-attractant for haematopoietic cells - useful for diagnosis and treatment of e.g. auto-immune
                                                                                                                                                                                                          N-PSDB; Q94093.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Macrophage inflammatory protein-4.
Macrophage inflammatory protein-4; therapeutic; diagnostic
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                                                                                                                                                                                                                                                            (HUMA-) HUMAN GENOME SCI INC.
Adams MD, Li H, Rosen CA,
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                                                                                                            dysfunction and autoimmune diseases. Antagonists/inhibitors of MIP-4 are used to treat diseases involving overexpression of MIP-4, including silicosis, arteriosclerosis, autoimmune and chronic inflammatory and infective diseases, aplastic anaemia,
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Search completed: Thu 24 secs. Apr 1 14:04:49 1999 THIS PAGE BLANK (USPTO)



Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

MPsrch\_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:29:48 1999; MasPar time 3.02 Seconds 74.507 Million cell updates/sec

Tabular output not generated.

Title:

Sequence: Description: Perfect Score: >US-08-927-939-8 (1-6) from US08927939.pep 1 EICADP 6

Scoring table: PAM 150 Gap 15

Searched: 116738 segs, 37463448 residues

Post-processing: Minimum Match 0% Listing first 100 summaries

Database: pir58 1:pir1 2:pir2 3:pir3 4:pir4

Statistics: Mean 18.638; Variance 24.588; scale 0.758

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	1	3   B	ID	10
<b>у</b> п	4.4		109	งง	A60299	
ωı	44	100.0	148	2	S07723	immediate-early serum
4	44	100.0	700	<b></b> -	CIHUH2	٠
տ	44	100.0	700	N	S38361	(EC 3.4.22.
σ	43	97.7	97	N	JC4912	- human
7	43	97.7	99	N	JC2136	monocyte chemoattract
8	42	95.5		N	F69231	,
9	42	95.5		N	JC5295	monocyte chemotactic
10	42	•	99	Ŋ	JC2417	
11	42	95.5	120	Ŋ	148147	monocyte chemoattract
12	42	•	148	N	A30209	PDGF-inducible JE gly
13	41		92	N	I52322	macrophage inflammato
14	41	•	906	N	G69531	
15	40	90.9	283	N	JC5579	chymotrypsin-like ser
16	40	90.9	360	N	S49188	electron transfer fla
17	40	•	552	ν	A70709	0
18	39	88.6	50	N	C60407	monocyte adherence-in
19	39	•	92	N	A30574	LD .
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22	39	٠	99	N	A39296	monocyte chemoattract
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                                                #journal
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#title Human monocyte chemoattractant protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse competence gene JE.
#cross-references MUID:89153605
#accession S03339
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#journal Adv. Exp. Med. Biol. (1991) 305:47-56
#title Human monocyte chemoattractant protein-1 (MCP-1).
#cross-references_MUID:92095166
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                                                                                                                                                    ##cross-references GB:S71513;
                                                                                                                                                                          ##molecule_type mRNA
##residues 1-99 ##label YO2
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#residues 1-99 ##label YOS
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Int. J. Cancer (1990) 45:795-797
A chemoattractant expressed in human sarcoma cells
(tumor-derived chemotactic factor, TDCF) is identical to
monocyte chemoattractant protein-l/monocyte chemotactic a
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G. Mol. Cell. Biol. (1989) 9:4687-4695
The human homolog of the JE gene encodes a monocyte secretory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Shyy, Y.J.; Li, Y.S.; Kolattukudy, P.E.
Biochem. Biophys. Res. Commun. (1990) 169:346-351
Structure of human monocyte chemotactic protein gene
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                                                                                                            Bottazzi, B.; Colotta, F.; Sica,
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ces GB:M30816; GB:M31625; GB:M31626; NID:g188701;
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Yamada, M.; Larsen, C.G.; Oppenheim, J.J.; Matsushin
#journal Biochem. Biophys. Res. Commun. (1989) 159:249-255
Cloning and sequencing of the cDNA for human monocyte
#cross-references MUID:89165862
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#title Identification of the monocyte chemotactic protein
osteosarcoma cells and monocytes: detection of a
N-terminally processed form.
#cross-references_MUID:90211336
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p_position 17q11.2-17q12
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##residues 24-28,'Q',30-99 ##label YEQ
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#fresidues 1-99 ##label LIY
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##residues 'X',25-99 ##label ROB
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#residues 1-99 ##label F
##cross-references GB:M24545;
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The PCR, cloning and sequencing of human monocyte
chemoattractant protein-1 (MCP-1) gene.
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                                                                                                                                                                                                                                                                                                                                            #superfamily macrophage inflammatory protein
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#modified site pyrrolidone carboxylic acid
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##cross-references EMBL:X71087; NID:g288396; PID:g288397
This protein induces proteinase secretion and chemo
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monocyte chemotactic protein 3 precursor
monocyte chemotatractant protein MCP-3
#formal_name Homo sapiens #common_name man
28-Oct-1994 #sequence_revision 28-Oct-1994
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The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome 17g11.2-q12.
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#cross-references MUID: 90380278
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##cross-references GB:M57441; NID:g205333; PID:g205334
##experimental_source spleen cells
##experimental_source spleen called
the authors translated the codon GAA for
##note Lys and GCT for residue 63 as Leu
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##residues 1-148 ##label TIM
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calpain (EG 3.4.22.17) large chain 2 - human
calpain (EA 1.22.17) large chain 2 - human
calpain chain 1-2; calpain II catalytic chain; high-calc
requiring, calcium activated neutral proteinase (CANP)
large subunit; m-calpain (millimolar) heavy chain
#formal_name Homo sapiens #common_name man
21.Nov-1993 #sequence_revision 09-Aug-1997 #text_change
02-Sep-1997
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#formal_name Rattus norvegicus #common_name Norway rat
29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change
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Biochem. Biophys. Res. Commun. (1991) 174:504-509
Molecular cloning of rat monocyte chemoattractant
(MCP-1) and its expression in rat spleen cells a
                                    T.C.; Ohno, S.; Minami, Y.; Suzuki, K.
Biol. Chem. Hoppe-Seyler (1990) 371[Suppl.]:171-176
A novel member of the calcium-dependent cysteine pro
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Analysis of the rat JE gene promoter identifies an AP-I binding site essential for basal expression but not 1
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#product immediate-early serum-responsive
#status predicted #label MAT
#length 148 #molecular-weight 16460 #checksum
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Pred. No. 6.98e+00;
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#title Molecular cloning of the cDNA for the large subunit of high-Ca(2+)-requiring form of human Ca(2+)-activated neutral protease.
#cross-references MUID:89186474
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##residues 1-210,'I',212-394,'D',396-445,'I',447-700 ##label
##cross-references GB:M23254; NID:g511636; PID:g511637
##cross-references of this sequence were determined by protein
sequencing; the amino end of the mature protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ##molecule_type DNA
##residues 1-67,'G',69-72,'IE',75-78,'R' ##label HAT
##cross-references DDBJ:J04700; NID:g179910; PID:g463086
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p_position lpter-1qter
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Local Similarity 100.0%;
les 6; Conservative
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$38361;
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                                           #formal_name Rattus norvegicus
31-Dec-1993 #sequence_revision
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                                08-Sep-1997
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II 80K chain
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3.4.22.17) II large chain -
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                                               #common_name
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##residues 380-439 ##label SAM
##cross-references EMBL:X51772
[FICATION #superfamily calpain large chain; calmodulin repeat homology;
calpain catalytic domain homology

RDS calcium binding; cysteine proteinase; duplication; EF hand;
heterodimer; hydrolase
                                                                                                                                                                                             ##residues 1-700 ##label DEL
##cross-references EMBL:L09120; NID:g402665; PID:g402666
                                                                                                                                                                                                                                                                      ##molecule_type mRNA
##residues 1-97 ##label BAR
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                                                                                                                                                                                                                                                                                                                      variants.
JC4912
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Human dermal fibroblasts express eotaxin: Molecular cloni
mRNA expression, and identification of eotaxin sequence
                                                                                                                                                                                                                                                                                                                                                                                   Bartels, J.; Schlueter, C.; Richter, E.; Noso, N.; I
Christophers, E.; Schroeder, J.M.
Biochem. Biophys. Res. Commun. (1996) 225:1045-1051
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the EMBL Data Library, February 1990
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                                                           Score 43; DB 2;
Pred. No. 1.12e+01
1; Mismatches
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##molecule_type DNA
1-64 ##label MTH
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##residues 1-99 ##label ZAC
##residues 1-99 ##label ZAC
##coss-references EMBL:X79416; NID:g872312; PID:g872313
##CCATION #superfamily macrophage inflammatory protein
EDS glycoprotein
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Dubols, J.; Aldredge, T.; Bashirzadeh, R.; Blakely, D.;
Cook, R.; Gilbert, K.; Harrison, D.; Hoang, L.; Keagle, P.;
Lumm, W.; Pothler, B.; Qiu, D.; Spadafora, R.; Vicaire, R.;
Wang, Y.; Wierzbowski, J.; Gibson, R.; Jiwani, N.; Caruso,
A.; Bush, D.; Safer, H.; Patwell, D.; Prabhakar, S.;
McDougall, S.; Shimer, G.; Goyal, A.; Pletrokovski, S.;
Church, G.M.; Daniels, C.J.; Mao, J.; Rice, P.; Noelling,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Zach, O. submitted to the EMBL Data Library, July 1994 S57498
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Biochem. Biophys. Res. Commun. (1994) 199:962-968

Porcine luteal cells express monocyte chemoattractant protein-1 (MCP-1): Analysis by polymerase chain rea
                                                                                                                                                       Complete genome sequence of Methanobacterium thermoautotrophicum Delta H: functional analysis and
                                                                                                                                                                                                J.; Reeve, J.N.
J. Bacteriol. (19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  hypothetical protein MTH983 - Methanobacterium thermoautotrophicum (strain Delta H) #formal_name Methanobacterium thermoautotrophicum 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_
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#formal_name Sus scrofa domestica #common_name domestic pig
30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
08-Sep-1997
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#product monocyte chemoattractant protein-1 #status
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Pred. No. 1.12e+01;
1; Mismatches 0
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Best Local Similarity 83.3%;
Matches 5; Conservative
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Best Local
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##residues 1.99 ##label VAN
##cross-references GB:Y10802; NID:g1924937; PID:e294088; PID:g1924938
##cross-references GB:Y10802; PID
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##experimental_source strain Delta H
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Van Aelst, I.; Van Damme, J.; Opdenakker, G.
Biochem. Biophys. Res. Commun. (1997) 231:726-730
Human monocyte chemotactic protein-2: cDNA cloning and
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                                                                                                                Biochem. Biophys. Res. Commun. (1994) 205:148-153 Porcine luteal cells express monocyte chemoattractant protein-2 (MCP-2): Analysis by cDNA cloning and nor
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#formal_name Sus scrofa domestica #common_name
24-Feb-1995 #sequence_revision 24-Feb-1995 #tex
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#length 99 #molecular-weight 11246 #checksum 6596
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Pred. No. 1.77e+01;
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    Mismatches

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24-99
                                                                                                                                                 #authors Rollins, B.J.; Morrison, E.D.; Stiles, C.D.
#journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:3738-3742
#title Cloning and expression of JE, a gene inducible by
#latelet-derived growth factor and whose product
cytokine-like properties.
#cross-references_MUID:88234501
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                                                                                  ##cross-references GB:M19681; NID:g193486; PID:g387168;
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Local Similarity 83.3%;
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##cross-references GB:L04985;
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Kawahara, R.S., Deuel, T.F.

J. Biol. Chem. (1989) 264:679-682

Platelet-derived growth factor inducible gene JE is of a family of small inducible genes related to pl
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#superfamily macrophage inflammatory protein
#length 120 #molecular-weight 13741 #checksum
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#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
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PDGF-inducible JE glycoprotein precursor - mouse
#formal_name Mus musculus *common_name house mouse
01-Dec-1989 #sequence_revision 01-Dec-1989 #text_change
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#product monocyte chemoattractant protein-2 #status
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Pred. No. 1.77e+01
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NID:g349820; PID:g349821
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[FICATION #superfamily macrophage inflammatory protein #length 92 #molecular-weight 10335 #checksum
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##cross-references GB:J04467;
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26/1; 65/2
Klenk, H.P.; Clayton, R.A.; Tomb, J.F.; White, O.; Nelson, K.E.; Ketchum, K.A.; Dodson, R.J.; Gwinn, M.; Hickey, E.K.; Peterson, J.D.; Richardson, D.L.; Kerlavage, A.R.; Graham, D.E.; Kyrpides, N.C.; Fleischmann, R.D.; Quackenbush, J.; Lee, N.H.; Sutton, G.G.; Gill, S.; Kirkness, E.F.; Dougherty, B.A.; McKenny, K.; Adams, M.D.; Loftus, B.; Peterson, S.; Reich, C.I.; McNeil, L.K.; Badger, J.H.; Glodek, A.; Zhou, L.; Overbeek, R.; Gocayne, J.D.; Weldman, J.F.; McDonald, L.; Utterback, T.; Cotton, M.D.; Spriggs, T.; Artiach, P.; Kaine, B.P.; Sykes, S.M.; Sadow, P.W.;
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macrophage inflammatory protein-lalpha - rat
#formal_name Rattus norvegicus #common_name Norway rat
29-May-1998 #sequence_revision 29-May-1998 #text_change
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alanyl-tRNA synthetase (alas) homolog
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Biochem. Biophys. Res. Commun. (1995) 211:289-295
Molecular cloning and posttranscriptional regulation
macrophage inflammatory protein-1 alpha in alveolar
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05-Dec-1997 #sequence_revision 05-Dec-1997
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Pred. No. 2.80e+01
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NID:g193488;
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Best Local Similarity 83.3%;
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##cross-references DDBJ:D86743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ##molecule_type DNA 1-906 ##label KLE
                                                                                                                                                                                                         231 DVCAEP 236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ##cross-references GB:AE000949; GB:AE000782; NID:g2689272; PID:g2648270; TIGR:AF2255
                                                                                                                                                                                                                                90.9%;
Local Similarity 50.0%;
hes 3; Conservation
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GTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Taguchi, S.; Ogawa, T.; Endo, T.; Momose, H.
Biosci. Biotechnol. Biochem. (1997) 61:909-913
A gene homologous to the Streptomyces chymotrypsin-like
protease (SAM-P20) gene is tandemly located.
JC5579
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#length 906 #molecular-weight 102536 #checksum 4232
#formal_name Azotobacter vinelandii
16-Feb-1995 #sequence_revision 12-May-1995 #text_change
08-Sep-1997
                                                 fixB protein
                                                                                                                                                                                                                                                                                                                                                                                                                hydrolase
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#formal_name Streptomyces albogriseolus
23-Sep-1997 #sequence_revision 23-Sep-1997 #text_change
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                                                                                     S49188 #type complete electron transfer flavoprotein alpha chain
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Nature (1997) 390:364-370
                                                                                                                                                                                                                                                                                                                                                                                                                               #superfamily Streptomyces proteinase A; trypsin homology
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                                                                   Azotobacter vinelandii
                                                                                                                                                                                                                                                                                                         #domain signal sequence #status predicted #label SIG\
#product chymotrypsin-like serine proteinase #status
predicted #label MATV
#active_site His, Asp, Ser #status predicted
#attive_site His, Asp, Ser #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    authors translated the
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                                                                                                                                                                                                                                                         Score 40; DB 2; Pred. No. 4.39e+01
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Pred. No. 2.80e+01
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#authors Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Harris, D.; Gordon, S.V.; Eiglmeier, K.; Gas, S.; Barry III, C.E.; Tekaia, F.; Badcock, K.; Basham, D.; Brown, D.; Chillingworth, T.; Connor, R.; Davies, R.; Devlin, K.; Feltwell, T.; Gentles, S.; Hamlin, N.; Holroyd, S.; Hornsby, T.; Jagels, K.; Krogh, A.; McLean, J.; Moule, S.; Murphy, L.; Oliver, S.; Osborne, J.; Quail, M.A.; Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Selton, S.; Squares, S.; Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G.

#journal Nature (1998) 393:537-544

#title Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence.

#accession a70700
                                                          RESULT
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Best Local Similarity 66.7%;
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                                                                                                                                                                                312 EICEDP 317
                                                                                                                                                                                                                                                                                                                                                                              ##residues 1-552 ##label COL
##cross-references GB:Z80226; GB:AL123456; NID:g3261638; PID:e266572;
PID:g1550660
                                                                                                                                                                                                                                                                                                                                                                                                                          ##molecule_type DNA
##residues 1-5
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##cross-references EMBL:X85515; NID:g510483; PID:g510486
FICATION #superfamily electron transfer flavoprotein a.

DS electron transfer; flavoprotein
                                                                                                                                                                                                                                                                                                                                                            ##experimental_source strain H37Rv
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Similarity 83.3%;
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submitted to the EMBL Data Library, Apri
Molecular cloning of fixA, fixB, fixC an
monocyte adherence-induced protein 5 beta - human (fragu
#formal_name Homo sapiens #common_name man
06-Nov-1992 #sequence_revision 06-Nov-1992 #text_change
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#length 552 #molecular-weight 60896
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17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change
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Pred. No. 4.39e+01;
2; Mismatches 0; Indels
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Pred. No. 4.39e+01;
0; Mismatches 1
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#journal
#title
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Martin, G.; Ladner, M.; Haskill, S.

#journal J. Immunol. (1990) 144:4434-4441

#title Monocyte adherence results in selective induction of novel genes sharing homology with mediators of inflammation and tissue repair.

#cross-references MUID:90257367

#accession C60407
                                                                                                                                           #authors Blum, S.; Forsdyke, R.E.; Forsdyke, D.R.
#journal DNA Cell Biol. (1990) 9:589-602
#title Three human homologs of a murine gene encoding an
forcession of stem cell proliferation.
#cross-references MUID:91103879
#accession A30412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         #journal #title
                                                                                                                                                                                                                                                                                                                                                                  #journal J. Immunol. (1989) 142:1582-1590
#title Mitogenic activation of human T cells induces two closely
related genes which share structural similarities with a
mew family of secreted factors.
#cross-references MUID:89140347
#accession A30574
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#accession A35673
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                                                                                                                                                                                                                                                                                              ##molecule_type mRNA
##residues 1-92 ##label ZIP
##cross-references GB:M25315; NI
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##cross-references GB:D90144; NID:g219905; PID:d1014875;
PMCE A30574
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##residues 1-50
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Local Similarity 66.7%;
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macrophage inflammatory protein 1-alpha precursor - human
LD78-alpha protein precursor; lymphocyte tumor
promoter-induced protein; macrophage inflammatory protein
homolog GOS19-1; MIP-lalpha; pAT464; small inducible
cytokine A3; T-cell activation protein 1
#formal_name Homo sapiens #common_name man
03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
29-May-1998
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C60407
A60407
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Obaru, K.; Fukuda, M.; Maeda, S.; Shimada, J. Biochem. (1986) 99:885-894 A cDNA clone used to study mRNA inducible lymphocytes by a tumor promoter.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nakao, M.; Nomiyama, H.; Shimada, K. Mol. Cell. Biol. (1990) 10:3646-3658 Structures of human genes coding for
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                                                                                                        1-92 ##label BLU
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Pred. No. 6.83e+01
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Best Local Similarity 66.7%;
#journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:9704-4
#title Identification, cloning, and characterization
activation gene.
#cross-references MUID:89071764
#accession A31767
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                                                                                                                                                                                                                                                          Seuanez, H.N.; Leonard, W.J.

J. Biol. Chem. (1991) 266:17531-17536

The gene encoding the Act-2 cytokine. Genomic structure,

HTLV-I/tax responsiveness of 5' upstream sequences, an
chromosomal localization.
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                                                                                                                                                                               ##cross-references GB:X53682; NID:g34217; PID:g34218
##experimental_source natural killer cell, strain CD
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##molecule_type mRNA
##residues 1-92 ##labe
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macrophage inflammatory protein 1-beta precursor - human
cytokine HC21; G-26 protein; H400 homolog; lymphocyte
activation gene 1 protein (LAG-1); MIP-1beta; pAT744; SC
protein (misidentification); SIS gamma homolog; T-cell
activation protein 2 (Act-2); T-cell activation protein
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                                                                                                                      Lipes, M.A.; Napolitano, M.; Jeang, K.T.; Chang, N.T.;
                                                                                                                                            A31767
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 #formal_name Homo sapiens #common_name man
07-Jun-1990 #sequence_revision 29-May-1998 #text_change
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                                                                                                   Leonard, W.J.
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predicted #label MAT\
#disulfide_bonds #status predicted
#disulfide_bonds #status predicted
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Pred. No. 6.83e+01;
2; Mismatches 0
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Hercend, T.; Triebel,
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FEATURE
1-23
24-92
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SUMMARY
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##residues 7-55,'1',57-79,'T',81-92 ##label MIL
##cross-references GB:M57503; NID:g339726; PID:g339727
REFERENCE A30552
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Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               #authors Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes
are members of a new superfamily that includes leukocyte
and fibroblast-derived inflammatory agents, growth factors,
and indicators of various activation processes.
#cross_references_MUID:89093958
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#title Isolation and characterization of a cDNA encoding a putative cytokine which is induced by stimulation via the CD2
structure on human T lymphocytes.
#cross-references MUJD:89325421
#accession A37411
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#cross-references MUID:89140347

#accession B30574
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##residues 1-39,'REASS',46-92 ##label BRO
##cross-references GB:M23502; NID:g533212; PID
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##cross-references GB:X16166; NID:g32035; PID:g32036
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##cross-references GDB:127451; OMIM:153335
p_position 17q21-17q21
trons 26/1; 64/2
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This protein is secreted by activated lymphocytes and monocytes. is bound by chemokine (C-C) receptor 5 (see PIR:A43113) and receptor 1 (see PIR:A45177).
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Clore, G.M.; Lodi, P.J.; Garrett, D.S.; Gronenborn, charitted to the Brookhaven Protein Data Bank, Janua
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Miller, M.D.; Hata, S.; Malefyt, R.D.W.; Krangel, J. Immunol. (1999) 143:2907-2916
Annual polypeptide secreted by activated human T
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                                                                                                                                                                                                                                             #superfamily macrophage inflammatory protein
                                                                            #length
                                                                          #disulfide_bonds #status experimental
th 92 #molecular-weight 10212 #chec
                                                                                                                        #product macrophage inflammatory
experimental #label MAT\
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     88.6%;
                                                                                                                                                                                                                         cytokine; inflammation
  Score 39;
Pred. No.
  DB 1; I
6.83e+01;
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#journal DNA Cell Biol. (1990) 9:589-602
#title Three human homologs of a murine gene encoding
for stem cell proliferation.
#cross-references MUID:91103879
#accession B30412
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#title
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                #authors Irving, S.G.; Zipfel, P.F.; Balke, J.; McBride, O.W.; Mortor C.C.; Burd, P.R.; Siebenlist, U.; Kelly, K.

#journal Nucleic Acids Res. (1990) 18:3261-3270

#wo inflammatory mediator cytokine genes are closely linked and variably amplified on chromosome 17q.

#cross-references MUID:90287702
                                                                                                                                                                                                                                                                                           ##cross-references GDB:120369;
#map_position 17q11-17q21
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#cross-references MUID:90287155
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This protein is a member of a "small inducible" or "activation specific" gene family, is likely to be an early-acting interleukin, and is the product of a putative G0/G1 switch gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ##molecule_type DNA
#residues 1-93 ##label BLU
##cross-references GB:M24110; GB:M32338; NID:g182848; PID:g182849
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ##status preliminary
##molecule_type mRNA
##residues 1-93 ##label
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##cross-references GB:D90145; NII
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                                        72 QVCADP 77
                                                                                               Match 88.6%;
Local Similarity 66.7%;
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LD78-beta protein precursor - human
macrophage inflammatory protein home
inducible cytokine A4
                                                                                                                                                       #domain signal sequence #status predicted #label SIG\
#product LD78-beta protein #status predicted #label M
#length 93 #molecular-weight 10161 #checksum 7784
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Structures of human genes coding for cytokine LD78 and their
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28-Sep-1990 #sequence_revision 28-Sep-1
24-Sep-1998
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                                                                                               Score 39; DB 2;
Pred. No. 6.83e+01
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KEYWORDS
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REFERENCE
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##residues 50-68,'X',70-74,'X',76 ##label WE2
##experimental_source seminal vesicle
CLASSIFICATION #superfamily macrophage inflammatory protein
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Best Local
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Best Local Similarity 83.3%;
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##residues 1-99 ##label WEM
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Local Similarity 83.3%;
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26/1, 65/2
#superfamily macrophage inflammatory
#length 99 #molecular-weight 11114
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DNA Cell Biol. (1991) 10:671-679
Gene expression and cDNA cloning identified a m
protein constituent of bovine seminal plasma
monocyte-chemoattractant protein-1 (MCP-1).
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JC2336
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Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
Characterization of the bovine monocyte chemoattractant
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#product monocyte chemoattractant protein 1 #status
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Best Local Similarity
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#cross-references MUID:91370083
#accession I49555
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##residues 1-29
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##residues 1-116 ##label RES
                                                       220 EVCTEP 225
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#formal_name Mus musculus #common_name house mouse
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
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Cell Regul. (1991) 2:403-412
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Pred. No. 6.83e+01
2; Mismatches
                                                                                                                                   Score 39; DB 2; Pred. No. 6.83e+01
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                                                                                                          Mismatches
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Best Local Similarity 66.7%;
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                                                                                                                                                                         171 EICNEP 176
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##note the authors translated the codon GAG for
Gly, GAA for residue 263 as Gln and AAY
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##cross-references EMBL:M37031; NID:gl44154; PID:gl44155
# #length 429 #molecular-weight 48858 #checksum
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beta-D-glucans such as cellulose and lichenin; can
hydrolyze such linkages in beta-D-glucans that also
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                                                                                                                                                                                                                                                                                    cellulose degradation glycosidase; hydrolase; polysaccharide degradation #length 448 #molecular-weight 49366 #checksum 3186
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Appl. Environ. Microbiol. (1988) 54:1289-1292
Structure of an endo-beta-1,4-glucanase gene from Clostridium
acetobutylicum P262 showing homology with endoglucanase
genes from Bacillus spp.
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J. Gen. Microbiol. (1990) 136:2089-2097
Cloning and sequencing of the cela gene encoding endoglucanase A of Butyrivibrio fibrisolvens strain A46.
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#35971 #type fragment
mast cell growth factor - mouse (fragment)
#formal_name Mus muscullus #common_name house mouse
14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change
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66.7%;
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Pred. No. 6.83e+01
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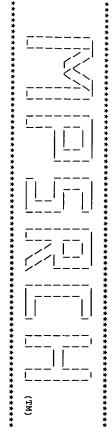
**Fark D.E.; Eisenman, J.; Baird, A.; Rauch, C.; Van Ness, Williams, D.E.; Eisenman, J.; Baird, A.; Rauch, C.; Van Ness, K.; March, C.J.; Park, L.S.; Martin, U.; Mochizuki, D.Y.; Boswell, H.S.; Burgess, G.S.; Cosman, D.; Lyman, S.D.

# # Journal Cell (1990) 63:167-174

# # title Identification of a ligand for the c-kit proto-oncogene.

# # # # Pross-references MUID:91004215
                                                                                                                      #journal
#title
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         #authors Williams, D.E.; Eisenman, J.; Baird, A.; Rauch, C.; Van Ness K.; March, C.J.; Park, L.S.; Martin, U.; Mochizuki, D.Y.; Fournal Boswell, H.S.; Burgess, G.S.; Cosman, D.; Lyman, S.D. #journal Cell (1990) 63:167-174
#title Identification of a ligand for the c-kit proto-oncogene. #cross-references MJID:91004215
                                   #cross-references_MUID:89093958
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##residues 1-51 ##label WIL
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##residues 1-49 ##label WIL
##molecule_type mRNA
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Similarity 66.7%;
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macrophage inflammatory protein 1-beta - mouse
H400; SIS gamma; T-cell activation protein gamma
#formal_name Mus musculus #common_name house mouse
28-Aug-1989 #sequence_revision 28-Aug-1989 #text_change
                                                        Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G. J. Immunol. (1989) 142:679-687
A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocyte and fibroblast-derived inflammatory agents, growth factors, and indicators of various activation processes.
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mast cell growth factor - mouse (fragment)
mast cell growth factor - mouse (fragment)
formal_name Mus musculus #common_name house mouse
14-Dec-1990 #sequence_revision 14-Dec-1990 #text_change
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Pred. No. 1.06e+02;
2; Mismatches 0
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Pred. No. 1.06e+02;
2; Mismatches 0
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Best Local Similarity 66.7%;
Matches 4; Conservative
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#title Resolution of the two components of macrophage inflammatory protein 1, and cloning and characterization of one of those components, macrophage inflammatory protein 1 beta.
#cross-references MUID:89067830
#accession JL0088
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   #accession
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            #authors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           #description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  #submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ##molecule_type DNA ##residues 1-92 ##label DAU ##residues 1-92 ##label DAU ##cross-references EMBL:X62502; NID:g53126; PID:g53127 This protein is a monokine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ##cross-references GB:M23503; NID:g533244; PID:g533245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ##molecule_type protein
##residues 24-33,'XX',36,'X',38 ##label SH2
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##residues 1-92 ##label SHE
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1 EICADP 6
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S22042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Daubersies, P.; Lepretre, F.; Bailleul, B.; Grove, M.; Pragnell, I.; Plumb, M. submitted to the EMBL Data Library, October 1991 Sequence of the murine macrophage inflammatory protein 1b
                                                                                                                                                                                                                                                                #domain signal sequence #status predicted #label SIG\
#product macrophage inflammatory protein 1-beta #status
experimental #label MAT\
#binding_site carbohydrate (Asn) (covalent) #status
predicted
#length 92 #molecular-weight 10168 #checksum 7516
                                                                                                                                                                                                                                                                                                                                                                                                                          *superfamily macrophage inflammatory protein glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.;
Davatelis, G.; Wolpe, S.D.; Masiarz, F.; Coit, D.; Cerami,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S22042
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         preliminary
                                                                                                                                                                            Score 38; DB 2; Length 92; Pred. No. 1.06e+02; 2; Mismatches 0; Indels
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MPsrch\_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:28:30 1999; MasPar time 2.10 Seconds 76.598 Million cell updates/sec

Tabular output not generated.

Sequence: Description: Perfect Score: Title: >US-08-927-939-8 (1-6) from US08927939.pep

1 EICADP 6

PAM 150 Gap 15

enoring table:

Searched: 74019 seqs, 26840295 residues

Post-processing: Minimum Match 0% Listing first 100 summaries

Database: swiss-prot36 1:swissprot

Statistics: Mean 19.414; Variance 22.851; scale 0.850

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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MAJOR ENVELOPE GLYCOPP HYPOTHETICAL 80,2 KD p CALPAIN P94, LARGE (CA PROTEIN TYROSINE PHOSP PUTATIVE POLYKETIDE SY 50S RIBOSOMAL PROTEIN I T-CELL SPECIFIC RANTES HYPOTHETICAL PROTEIN F T-CELL SPECIFIC RANTES MACROPHAGE INFLAMMATOR THAMIS AND ACTIVATION- SERINE PROTEASE 2 (EC 3-OXOADIPATE COA-TRANS FLAGELLAR CALCIUM-BIND GLYS-SPECIFIC CYCLIN E BIOTIN CARBOXYLASE (EC PROBABLE T-COMPLEX PRO ATP-DEPENDENT DNA HELI UROMODULIN PRECURSOR ( UBIQUITIN-ACTIVATING E TYROSINE-PROTEIN KINAS MAPK/ERK KINASE KINASE MAPK/ERK KINASE KINASE	ALANYL-TRNA SYNTHETASE FIXB PROTEIN. MACROPHAGE INFLAMMATOR MACROPHAGE INFLAMMATOR MACROPHAGE INFLAMMATOR TONSILIAR LYMPHOCYTE L MONOCYTE CHEMOTACTIC PROTEIN PRECURSOR. HYPOTHETICAL 3.2 KD PCONE-ROD HOMEDBOX PROTEIN PRECURSOR CONE-ROD HOMEDBOX PROTENDOGLUCANASE PRECURSOR ENDOGLUCANASE PRECURSOR ENTOGLUCANASE PRECURSOR ENTOGLUCAL 4.3 KD PROTEITICAL 4.3 4 KD PROTEITICAL 4.3 KD PROTEITICAL 4
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P97545; 008780;
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01-FEB-1996
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GONZALO J.-A., JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A.J., JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., GUTIERREZ-RAMOS J.-C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; U26426; G995911; -. EMBL; U40672; G1113937; -. MGD; MGI:103576; SCYA11.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IMMUNITY 4:1-14(1996).

-i- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, TO THE PRESENCE OF ALLERGENS, TO THE PRESENCE OF ALLERGENS, TO THE ACCUMULATION OF EOSINOPHILS (A DIRECTLY PROMOTES THE ACCUMULATION REACTIONS), BUT NOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EOTA_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                    CHAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
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ROTHENBERG M.E., LUSTER A.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE-LUNG
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        EOTAXIN
                                                                                                                                                                                                                                                                                                                                                                                                                                       SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EOSINOPHIL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS00472;
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                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                 71 EICADP 76
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
SUBCELLULAR LOCATION: EXYRACELLULAR.
TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
EXYRESSION INDUCTIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
INDUCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PTM: O-GLYCOSYLATED (PROBABLE).
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE CC-C-C).
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ARYOTA; METAZOA; CHORDATA;
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(REL. 36, CREATED)
(REL. 36, LAST SEQUENCE UPDATE)
(REL. 36, LAST ANNOTATION UPDATE)
LURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
                                                                                                                                                                                                                                                                      100.0%;
llarity 100.0%;
Conservative
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ထထထထ
                                                                                                           STANDARD;
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LAST SEQUENCE UPDATE)
, LAST ANNOTATION UPDATE)
OSINOPHIL CHEMOTACTIC PROTEIN).
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COAC_SCHPO
POL1_BAYMJ
POL1_BAYMG
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                                                                                                                                                                                                                                                                                                                                                  EOTAXIN.
BY SIMILARITY.
BY SIMILARITY.
; F85A96BC CRC32;
                                                                                                                                                                                                                                                                                           Score 44; DB 1; 1
Pred. No. 3.26e+00;
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92:8960-8964(1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                         PRT;
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A PROMINENT
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CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                           15-JUL-1998 (REL. 36, CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4)
CHEMOATTRACTANT PROTEIN 4) (CK-BETAIO) (NCC-1).
SCYAL3 OR MCP4 OR NCC1.
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.

-!- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERCENS, THIS PROTEIN DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).

-!- PIM: O-GLYCOSYLATED (PROBABLE).

-!- PIM: O-GLYCOSYLATED (PROBABLE).

-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).

EMBL; Y08358; E274141; -.

EMBL; Y08358; E274141; -.
                                                                                             UGUCCIONI M., LOETSCHER P., FORS
LI Y., KREIDER B., GAROTTA G., T
J. EXP. MED. 183:2379-2384(1996)
                                                                                                                                                                                                                                      MEDLINE; 97113354.
GARCIA-ZEPEDA E.A., COMBADIERE C.,
LAVIGNE F., HAMID Q., MURPHY P.M.,
J. IMMUNOL. 157:5613-5626(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MCP4_HUMAN
Q99616;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RATTUS NORVEGICUS (RAT) EUKARYOTA; METAZOA; CHO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                      TISSUE-FETAL;
                                                                                                                                                        MEDLINE; 96235049
                                                                                                                                                                               TISSUE-FETAL
                                                                                                                                                                                                                                                                                                                     TISSUE-HEART;
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EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN;
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                      MEDLINE;
                                                             SEQUENCE FROM
                                                                                                                                                                                                 SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                              EUTHERIA; PRIMATES.
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97341179.
T.A., SARAU
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4324
                                                         N.A.,
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57
73
94
                                                           AND
н.м.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL/GENBANK/DDBJ DATA BANKS
                                                         SEQUENCE
                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MW;
MOORES K., WHITE J.R.,
                                                                                                                    FORSSMANN U.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WILSON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     POTENTIAL.
EOTAXIN.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 44; I
Pred. No. 3.
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L -> S (IN REF.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
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                                                                                                                                                                                                                                                        ROTHENBERG
LUSTER A.D.
                                                         22-33
                                                                                                                                                                                                 17-98
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3.26e+00;
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                                                                                                                                                                                                                                                                                                                                                                                                 TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TETRAPODA; MAMMALIA;
                                                                                                                    DEWALD B.,
BAGGIOLINI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2).
                                                                                                                                                                                                                                                                        M.E.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
ELSHOURBAGY
                                                                                                                                                                                                                                                                               SARAFI M.
                                                                                                                    M.;
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Best Local S
Matches
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P13500;

P13500;

O1-JAN-1990 (REL. 13, CREATED)

O1-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)

O1-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)

15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)

MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC

AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)

'MONOCYTE CHEMOATTRACTANT PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE

'MONOCYTE CHEMOATTRACTANT PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHAIN
MOD_RES
DISULFID
DISULFID
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE; CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.

-:- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES, BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH CCRRB AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF LEDKOCYTES AT BOTH SIDES OF ALLERGIC AND MONALLERGIC INFLAMMATION. MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF ARTHEROSCIEROSIS. MAY PLAY A ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO PROCESSED TO THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
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                                              FURUTANI
LARSEN C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. DANTE M., GIBSON F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; U46767; G:
EMBL; AC002482;
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[2]
SEQUENCE FROM N.A.
                               BIOCHEM.
                                                                          MEDLINE;
                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                           72 EICADP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BIOL.
                                                                                                                                                                                                                                                                                                                                                              \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 (PNPOGLA)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE.
(LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKI C-C) (CHEMOKINE CC).
L; U46767; G(1732123; -...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EXOGENOUS PATHOGENS.

MASS SPECTROMETRY: MW-9314; MM_ERR-30; METHOD-MALDI; I
MASS SPECTROMETRY: MW-8760; MW_ERR-30; METHOD-MALDI; I
MASS SPECTROMETRY: MW-8575; MW_ERR-30; METHOD-MALDI; I
INDUCTION: BY INTERLEUKIN-1 AND INF-ALPHA.

INDUCTION: BY INTERLEUKIN-1 AND THE ALPHA.

TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL I
TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL I
THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE.
SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
THIS PROTEIN CAN BIND HEPARIN.
                                                                                                                                                                                                                                                                                                                                                             EICADP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601391;
                            NCE FROM N.A.
NE; 89165862.
ANI Y., NOMURA H.,
N C.G., OPPENHEIM ;
                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity 6; Conse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              M E., REAPE T.J., BRAWNER M., MAKWANA J., FOLEY J.J.,
D.B., IMBURGIA C., MACNULTY D., MATTHEWS J., O'DONNELL K.,
SSY D., SCOTT M., GROOT P.H.E., MACPHEE C.;
CHEM. 272:16404-16413(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PS00472;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98
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KIS; SIGNAL; GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%;
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29
29
29
                               COMMUN.
                            NOTAKE M., OYAMADA Y., FU
J.J., MATSUSHIMA K.;
COMMUN. 159:249-255(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 44;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MONOCYTE CHEMOTACTIC PROTEIN 4.
PYRROLLDONE CARBOXYLIC ACID.
BY SIMILARITY.
BY SIMILARITY.
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3.26e+00;
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                                                           FUKUI
                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
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RANGE=24-98.
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EFFECT OF DELETION OF N-TERMINAL RESIDUES MEDLINE; 96195223.
WEBER M., UGUCCIONI M., BAGGIOLINI M., CL
                                                                                                                                                 MEDLINE; 96234959
HANDEL T.M., DOMA
BIOCHEMISTRY 35:6
                                                                                                                                                                                                                                                                                                                          MEDLINE: 89184525.

ROBINSON E.A., YOSHIMURA T., L
SHABANOWITZ J., HUNT D.F., APP
PROC. NATL. ACAD. SCI. U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE; 90290466.
SHYY Y.J., LI Y.S.,
BIOCHEM. BIOPHYS. R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEBS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               [3]
MOL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE; 90097880.
ROLLINS B.J., STIER
MOL: CELL. BIOL. 9:4
        MEDLINE; 97053697.

KIM K.-S., RAJARATHNAM K.,
FEBS LETT. 395:277-282(199
-!- FUNCTION: CHEMOTACTIC
                                                                                                                                                                                                                                       GRONENBORN A.M., CLORE G.M.; PROTEIN ENG. 4:263-269(1991).
                                                                                                                                                                                                                                                                                                                                                                                 ADV.
                                                                                                                                                                                                                                                                                                                                                                                                                                   LI Y.S., SHYY Y.J., KOLATTUKUDY P.E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      [6] .
                                                                   MEDLINE; 94.
ZHANG Y.J.,
                                                                                                                                                                           STRUCTURE BY
                                                                                                                                                                                                                      X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
                                                                                                                                                                                                                                                       3D-STRUCTURE MODELLING MEDLINE; 91312872.
                                                                                                                                                                                                                                                                                    BIOCHEM. BIOPHYS.
                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM MEDLINE; 92095
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHANG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. MEDLINE; 91207938.
                                            SUBUNIT.
                                                                                                                                                                                                     LUBKOWSKI
                                                                                                                                                                                                             MEDLINE;
                                                                                                                                                                                                                                                                                          DECOCK B.,
                                                                                                                                                                                                                                                                                                   MEDLINE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YOSHIMURA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE;
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                                                                                      MUTAGENESIS
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                                                           BIOL.
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STRUCT. F
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92095166.
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3., CONINGS
 NOT NEUTROPHILS
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89153605.
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                                                            CHEM.
                                                                    94253189.
J., RUTLEDGE
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                                                                                                      UGUCCIONI M., BAGGIOLINI ED. 183:681-685(1996).
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                                                                                                                                                                                                                                                                                                                                                                                                                           BIOCHEM.
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                                                                                                                                                 DOMAILLE P.J.;
35:6569-6584(1996).
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1:388-399(1989).
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         CHEMOTACTIC FA
                                                                                                                                                                                            BUJACZ G., DOMAILLE P.J., SIOL. 4:64-69(1997).
                                                            TLEDGE B.J., ROLLINS B. 269:15918-15924(1994).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IER P., ERNST T.,
9:4687-4695(1989)
                                                                                                                                                                                                                                                                                    RES.
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                                                                                                                                                                                                                                                                                                                                                                                305:47
                                                                                                                                                                                                                                                                                                             82-92
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COMMUN. 1
OR EOSINOPHILS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOORE
          FACTOR THAT ATTRACTS
                                                                                                                                                                                                                                                                                                                                    APPELLA E.;
                          CLARK-LEWIS
                                                                                                                                                                                                                                                                                                                                                                                -56(1991).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S.K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Y P.E.;
169:346-351(1990)
                                                                                                                                                                                                                                                                                  S J.-P., BILIAU A.,
167:904-909(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WONG
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                                                                    B.J.;
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                         I.,
                                                                                                                CLARK-LEWIS
TTRACTS MONOCYTES AND BASOPHILS AUGMENTS MONOCYTE ANTI-TUMOR
                                                                                                                                                                                                     HANDEL
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                           SYKES
                                                                                                                                                                                                                                                                                                                                              TANAKA
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H
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                                                                                                                                                                                                     WLODAWER A.;
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                                                                                                               DAHINDEN
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RESULT
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Best Local
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EMBL M31626; G386961; ---
EMBL; M31625; G386961; JOINED.
EMBL; M31625; G386961; JOINED.
EMBL; M24545; G307163; ---
EMBL; M24545; G307163; ---
EMBL; M24546; G34514; ---
EMBL; M27719; G487124; ---
EMBL; M27719; G487124; ---
EMBL; M28225; G338007; JOINED.
EMBL; M28225; G338007; JOINED.
EMBL; M28224; G338007; JOINED.
EMBL; M28224; G338007; JOINED.
EMBL; S69738; G545465; ---
EMBL; S71513; G240868; ---
EMBL; S71786; G641145; ---
               01-WOV-1995 (REL. 24, CREATED)
01-WOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE CHEMOTACTACT PROTEIN 3) (NC28).
SCYA7 OR MCP3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PIR; A35474;
PIR; S03339; 12
PDB; 1DOK; 12
PDB; 1DOL; 12
PDB; 1DOM; 14
PDB; 1DON; 14
PDB; 1DON; 15
PDB; 1MCA; 15
MIM; 158105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL
CHAIN
MOD_RES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CYTOKINE;
                                                                                                                                                                                                                                                                     73 EICADP 78
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.

PTM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET CELL SELECTIVITY. DELETION OF THE AMINO- TERMINAL RESIDUE CONVERTS IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOATTRACTANT. SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY: BELONGS TO THE C-C) (CHEMOKINE CC).
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                                                                                                                                                                                                                             EICADP
                                                                                                                                                   HUMAN
 SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                         Similarity 100.0%, 6; Conservative
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12-MAR-97.
14-OCT-96.
14-OCT-96.
15-OCT-94.
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95574222222735444
95779644546775444
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                                                                                                                                                   STANDARD;
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Pred. No.
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N->A: 50% REDUCTION IN A
R->F: 95% REDUCTION IN A
S->Q: 40% REDUCTION IN A
Y->D: LOSS OF ACTIVITY.
R->L: LOSS OF ACTIVITY.
D->L: 90% REDUCTION IN A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       POTENTIAL.
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G: LOSS OF ACTIVITY.

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Best Local
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CONFLICT
SEQUENCE
                                                                                                                                                                                                -!- SUBUNIT: MONOMER.
-!- PIM: O-GLYCOSYLARED.
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).

C-C) (CHEMOKINE CC).
EMBL; X72308; G313708; ALT_INIT.
EMBL; X71087; G288399; -.
EMBL; X71087; G288399; -.
EMBL; X71087; G288399; ALT_INIT.
EMBL; X71087; G288397; ALT_INIT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE;
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                                                                                                                        CHAIN
                                                                                                                                                                                                                                                                                                                                            MEUNIER S., BERNASSAU J.-M., GUILLEMOT J.-C., FERRARA P., BIOCHEMISTRY 36:4412-4422(1997).

-!- EUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE & ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
MEDLINE; 94375065.
OPDENAKKER G., FITEN P., N
LAUREYS G., VAN DAMME J.;
GENOMICS 21:403-408(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MINTY A., CHALON P., GUILLEMOT J.C.
MAGAZIN M., MILOUX B., MINTY C., RA
SHIRE D., ERRRAR P., CAPUT D.;
EUR. CYTOKINE NETW. 4:99-110(1993).
                                                                                                                                    SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                   KIM K.-S.,
FEBS LETT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRUCTURE BY NMR, AND MEDLINE; 97053697.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VAN DAMME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE OF 30-99.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA; EUTHERIA; PRIMATES.
                                                                                                               MOD_RES
                                                                                                                                               INFLAMMATORY
                                                                                                                                                                                                                                                                                                                                                                                                              STRUCTURE
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                                                                                                                                                                                         INCV; 15-0CT-97.
             Similarity
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395:277-282(1996)
                                             99
 100.0%;
larity 100.0%;
Conservative
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176:59-65(1992).
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S. COMMUN. 1
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                                          MONOCYTE CHEMOTACTIC PROTEIN 3.
PYRROLIDONE CARBOXYLIC ACID.
BY SIMILARITY.
BY SIMILARITY.
POTENTIAL.
T -> K (IN REF. 4).
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191:535-542(1993)
 re 44; DB 1; Len
1. No. 3.26e+00;
Mismatches 0;
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; GLYCOPROTEIN;
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                     Length 99;
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Best Local
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SIGNAL
MEDLINE; 97079149.
JIA G.-O., GONZALO J.A., LLOYD C., WERSHIL B.K., GUTIERREZ-RAMOS J.C.; J. EXP. MED. 184:1939-1951(1996).
[2]
                                                                                                                                                                                                                                                                                                             CHEMOKINE).
SCYA12 OR MCP5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
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CANIS FAMILIARIS (DOG).
EUKARYOTA; METAZOA; CHORDATA;
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01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UP
15-JUL-1998 (REL. 36, LAST ANNOTATION
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURS
                                                                                                                                                                                                                                                                                                                                                                   01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP-5)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q62401;
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                                                                                                                                                                                                                                             MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA;
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                                                                                                                                                                                                                       EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOD_RES
                                                                                                                                                              SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KUMAR A.G., BALLANTYNE
LINDSEY M.L., HAWKINS H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE;
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Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      73 EICADP 78
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TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS VEINS, AND INFILTRATING LEUKOCYTES.
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYCCARDIUM. MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE REPERFUSED MYCCARDIUM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    _CANFA
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Pred. No. 3.26e+00;
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MONOCYTE CHEMOTACTIC
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3Y SIMILARITY.
A7075B14 CRC32;
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OTATION UPDATE)
PRECURSOR (MCP-1) (MONOCYTE
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                                                                                                  KREMER
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                       TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KUKIELKA
MACKAY C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VEINS
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                                                                                                                                                                                                                                                                                                                                                                         (MCP-1 RELATED
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACID
                                                                                                                                                                                                                                                       MAMMALIA
                                                                                               MARTINEZ
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Best Local
                                            C-C) (CHEMOKINE CC).
EMBL; X17053; G55531; -.
EMBL; M57441; G205334; -.
PIR; JN0128; JN0128.
PIR; S07723; S07723.
                                                                                                                                                                                                         [1]
SEQUENCE FROM N.A.
SERAIN-WAG/RIJ; TISSUE-KIDNEY;
STRAIN-WAG/RIJ; TISSUE-KIDNEY;
MEDLINE; 90174947.
TIMMERS H.T.H.M., PRONK G.J., BOS J.L.,
TIMMERS H.T.H.S. 18:23-34(1990).
         HSSP; P135
PROSITE; F
CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHAIN
DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                           MCP1_RAT STANDARD; PRT; 148 AA. P14844; O1-APR-1990 (REL. 14, CREATED) O1-APR-1990 (REL. 14, LAST SEQUENCE UPDATE) 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE) MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AND LYMPHOCYTES BUT NOT NEUTROPHILS, POSINOPHILS, MONOCYTES,
AND LYMPHOCYTES BUT NOT NEUTROPHILS. POSITY MONOCYTE ACTIVE
CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC
INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A
PLYOTAL ROLE DURING EARLY STACES OF ALLERGIC LUNG INFLAMMATION.
-!- SUBUNIT: HOMODIMER (BY SIMILARITY).
-!- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND
THYMUS. ALSO FOUND IN THE SALLYARY GLANDS CONTALNING LYMPH NODES,
BREAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.
-!- INDUCTION: BY IFN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                      SERUM-RESPONSIVE JE PROTEIN).
SCYA2 OR JE OR MCP1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MGD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
MEDLINE; 97149438.
SARAFI M.N., GARCIA-ZEPEDA E.A., MACLEAN J.A., CHARO
LUSTER A.D.;
J. EXP. MED. 185:99-109(1997).
                                                                                                                                                  -!- FUNCTION: CHEM
                                                                                                                                                                                                                                                                                                            RATTUS NORVEGICUS (RAT) EUKARYOTA; METAZOA; CHO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL
                                                                                                           -!- SUBUNIT: MONOMER OR
-!- SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; U5071
                                                                                                                                                                         YOSHIMURA T., TAKEYA M.,
                                                                                                                                                                                                 SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            72 EICADP 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
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                                                                                                                                                FUNCTION: CHEMOTACTIC
                                                                                                                                     NEUTROPHILS.
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ITE; PS00472; SMALL_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -C) (CHEMOKINE CC).
U50712; G1477582; -.
U66670; G1881583; -.
                       P13500; 1MC
(E; PS00472;
                                                                                                                                                                                   FROM N.A.
91128376.
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CHEMOTAXIS; 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PS00472; SMALL_CYTOKINES_CC; CHEMOTAXIS; SIGNAL; INFLAMM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              104 AA;
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433
                                   1MCA.
          SMALL_CYTOKINES_CC;
KIS; SIGNAL; INFLAMM.
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104
58
74
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                                                                                                                                                COMMUN. 17
                                                                                                           HOMODIMER;
                                                                                                                                               TAKAHASHI K.;
OMMUN. 174:504-509(1991).
C FACTOR THAT ATTRACTS MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Œ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred.
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Pred. No. 3.26e+00;
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BY SIMILARITY.
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INFLAMMATORY RESPONSE.
BY SIMILARITY.
BY SIMILARITY.

MONOCYTE_CHEMOTACTIC PROTEIN
BY SIMILARITY.
          INES_CC; 1.
INFLAMMATORY RESPONSE;
                                                                                                                                                                                                                                                                                                             VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                           MER; IN EQUILIBRIUM (BY INTERCRINE BETA FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08FA6C35 CRC32;
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AC PROPE
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Best Local :
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Best Local Similarity 100.0%;
Matches 6; Conservative
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DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                   CAN2_RA
                                  SEQUENCE FROM N.A.

MEDLINE; 94032492.

DELUCA C.I., DAVIES P.L., SAMIS J.A., E
BIOCHIM. BIOPHYS. ACTA 1216.81-93(1993)

-!- FUNCTION: CALPAINS ARE CALCIUM-ACTI
                                                                                                                                                                                                                  01-JUN-1994 (REL. 29, CREATED)
01-JUN-1994 (REL. 29, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
CALPAIN 2, LARGE (CATALYTIC) SUBUNIT (EC 3.4.22.17)
NEUTRAL PROTEINASE) (CANP) (M-TYPE).
                                                                                                                                                                  RATTUS NORVEGICUS (RAT)
EUKARYOTA; METAZOA; CHO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS00086; CYTULHAULE, PROSITE; PS00086; CYTULHAULE, PROSITE; PONOOXYGENASE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         THCB OR CYP116. RHODOCOCCUS SP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UI
01-NOV-1995 (REL. 32, LAST ANNOTATION
                                                                                                                                                   EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CYTOCHROME P450 116 (EC 1.14.-.-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P43492;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROKARYOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                               288 EICADP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
nes 6; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                73 EICADP
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                                                                                                                                                    RODENTIA.
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35
126
148
   REGULATION: CALPAIN II
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FIRMICUTES; ACTINOMYCETALES;
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larity 100.0%;
Conservative
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75
126
16460 .
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48796
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24
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                                                                                                                                                                    CHORDATA; VERTEBRATA;
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                                      CALCIUM-ACTIVATED
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BY SIMILARITY.
BY SIMILARITY.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 44; I
Pred. No. 3
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Pred. No. 3.26e+00;
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5AA794CD CRC32;
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PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                      PRT;
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 ACTIVATED
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                                                                                                                                                                    TETRAPODA; MAMMALIA;
                                                                          4
                                      NON-LYSOSOMAL THIOL:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 436;
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BY MILIMOLAR
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C CALFALL

R EMBL; L09120; G404000.

DR POSITE; S38361, S38361.

DR PROSITE; PS00018; EE_HAND; 2.

DR PROSITE; PS00139; THIOL_PROTEASE_HIS; FALSE_NEG.

DR PROSITE; PS00639; THIOL_PROTEASE_ASN; FALSE_NEG.

DR PROSITE; PS00640; THIOL_PROTEASE, ASN; FALSE_NEG.

DR PROSITE; PS00640; THIOL_PROTEASE, ASN; FALSE_NEG.

TYDROLASE; THIOL PROTEASE; CALCIUM-BINDING; MULTIGENE FAMILY.

TI, REGULATION OF PROTEASE ACTIVITY.

TI, THIOL PROTEASE.

THIOL PROTEASE
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CAN2_MOUSE

CAN2_MOUSE

CON8529; 035518;

T 01-NOV-1997 (REL. 35, CREATED)

T 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)

DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)

CALPAIN 2, LARGE (CATALYTIC) SUBUNIT (EC 3.4.22

CALPAIN 2, CANE) (M-TYPE) (MILLIMOLAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
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ACT_SITE
ACT_SITE
ACT_SITE
CA_BIND
CA_BIND
                                                                                                                       OZAKI Y.;
SUBMITTED (OCT-1997) TO
-!- FUNCTION: CALPAINS
                                                                                                                                                                SEQUENCE FROM
STRAIN=BALB/C;
                                                                                                                                                                                                                   STRAIN-BALB/C;
DEAR T.N.;
                                                                                                                                                                                                                                                                               MUS MUSCULUS (MOUSE)
EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
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                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                    EUTHERIA;
                                                                                                                                                                                                      SUBMITTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        80 EICADP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                              ENZYME REGULATION: CALPAIN II IS ACTIVATED I CONCENTRATIONS OF CALCIUM (BY SIMILARITY). SUBUNIT: HETERODIMER OF A LARGE (CATALYTIC) (REGULATORY) SUBUNIT. CYTOPLASMIC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       THIS PROTEIN SEEMS TO BIND TWO MOLES OF CALCIUM.
IN RAT THERE SEEMS TO BE 2 TYPES OF CALPAIN: UBIQUITOUS
CALPAIN I (MICRO- MOLES CA++ REQUIRING) AND CALPAIN II (
CA++ REQUIRING), AND TISSUE SPECIFIC FORMS - CALPAIN P94
CA++ REQUIRING), AND TISSUE SPECIFIC FORMS.
SIMILARITY: TO CHHER EF-HAND CALCIUM BINDING PROTEINS.
SIMILARITY: BELONGS TO PEPTIDASE FAMILY C2; ALSO KNOWN A
(REGULATORY) SUBJECT:
SUBCELLULAR LOCATION: CYTOPLASMIC.
SUBCELLULAR LOCATION: CYTOPLASMIC.
IN MAMMALS THERE SEEM TO BE 3 DISTINCTS FORMS: CALPAIN I (MICRO-
MOLES CA++ REQUIRING), CALPAIN II (MILI-MOLE CA++ REQUIRING),
MOLES CA++ REQUIRING), CALPAIN II (MILI-MOLE CA++ REQUIRING),
MOLES CA++ REQUIRING), CALPAIN II (MIT IS COMMON TO ALL FORMS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CONCENTRATIONS OF CALCIUM SUBUNIT: HETERODIMER OF A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (REGULATORY) SUBUNIT.
SUBCELLULAR LOCATION: CYTOPLASMIC
                                                                                                             PROTEASES.
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                                                                                                                                                                                                      (APR-1997)
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                                                                                                                         O EMBL/GENBANK/DDBJ DATA BANKS ARE CALCIUM-ACTIVATED NON-LYSC
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BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
SITE 1 (PROBABLE).
SITE 2 (PROBABLE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 44; DB 1; Le
Pred. No. 3.26e+00;
0; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ANCESTRAL CALCIUM ANCESTRAL CALCIUM 885835BA CRC32;
                                                                                                                                                                                                                                                                               VERTEBRATA;
                                                                                                                                                                                                                                                                                                                    (EC 3.4.22.17) (CALCIUM-ACTIVATED (MILLIMOLAR-CALPAIN).
                                                                                                                                                                                                      DATA
                                                                                                                                                                                                                                                                               TETRAPODA; MAMMALIA;
                                                                                                                           NON-LYSOSOMAL THIOL-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 700;
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                                                                                                                                                                                                      BANKS
                                                                                                 BY MILIMOLAR
                                                                          AND
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AND NCL2.
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01-AUG-1990 (REL. 15, CREATED)
01-AUG-1990 (REL. 15, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
CALPAIN 2, LARGE (CATALYTIC) SUBUNIT (EC 3.4.22.17)
REUTRAL PROTEINASE) (CANP) (M-TYPE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CONFLICT
CONFLICT
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                                                                                                            MEDLINE; 89197947.
HATA A., OHNO S., AKITA Y., SUZUKI K.;
J. BIOL. CHEM. 264:6404-6411(1989).
-i- FUNCTION: CALPAINS ARE CALCIUM-ACTIVATED NON-LYSOSOMAL THIOL-
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DOMAIN
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                                                                                                                                                                                   SEQUENCE OF 1-79 FROM
                                                                                                                                                                                                       BIOCHEMISTRY 27:8122-8128(1988).
                                                                                                                                                                                                                     IMAJOH S., AOKI
SUZUKI K.;
                                                                                                                                                                                                                                         SEQUENCE FROM N.A. MEDLINE; 89166474.
                                                                                                                                                                                                                                                                          EUTHERIA;
                                                                                                                                                                                                                                                                                   HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; C
                                                                                                                                                                                                                                                                                                          CAPN2 OR CANPI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   - - -
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SUBUNIT: HETERODIMER OF A LARGE (CATALYTIC) AND A SMALL (REGULATORY) SUBUNIT.
SUBCELLULAR LOCATION: CYTOPLASMIC.
IN MAMMALS THERE SEEM TO BE 3 DISTINCTS FORMS: CALPAIN MOLES CA++ REQUIRING), CALPAIN II (MILI-MOLE CA++ REQUIRING), CALPAIN PHOLES CALCIUM.
SIMILARITY: TO OTHER EF-HAND CALCIUM BINDING PROTEINS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      THIS PROTEIN SEEMS TO BIND TWO MOLES OF CALCIUM (BY SIMILARITY). SIMILARITY: TO OTHER EF-HAND CALCIUM BINDING PROTEINS. SIMILARITY: BELONGS TO PEPTIDASE FAMILY C2; ALSO KNOWN AS THE CALPAIN FAMILY OF THIOL PROTEASES.
                                                                                                 PROTEASES.
ENZYME REGULATION: CALPAIN II IS
                                                                                           CONCENTRATIONS OF CALCIUM.
                                                                                                                                                                                                                                                                                                                                                                                                                                    EICADP
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Similarity 100.0%;
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PS00639; THIOL_PROTEASE_HIS; FALSE_NEG.
PS00640; THIOL_PROTEASE_ASN; FALSE_NEG.
SE; THIOL PROTEASE; CALCIUM-BIOLOUSE WILTIGENE FAMILY.
SE; THOOL PROTEASE; CALCIUM-BIOLOUSE FAMILY.
THOOLOGY THE PROTEASE ACTIVITY.
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SITE 2 (PROBABLE).
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                                                                                                     MILIMOLAR
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                                                                                                                                                                                                                              SUGIHARA
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                                                                                                                                                                                                                                                                                     MAMMALIA;
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                                    REQUIRING),
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Best Local S
Matches
                                                 Query Match
Best Local :
                                       Matches
                                                                                                                                           MEDLINE; 95034774.

MEDLINE; 95034774.

PROOST P., WUYTS A., LENAERTS J.-P., VAN DAMME J.;

PROOST P., WUYTS A.13406-13412(1994).

-I- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES,

NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. AI

THE RELEASE OF GELATINASE B. THIS PROTEIN CAN BIND HEI

-I- PTM: THE N-TERMINAL IS BLOCKED.

-I- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SM)
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DISULFID
DISULFID
SEQUENCE
                                                                                                                     PROSITE; F
CYTOKINE;
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CA_BIND
DOMAIN
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ACT_SITE
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ACT_SITE
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EMBL; J04700; G463086; -.

PIR; A31218; A31218.

MIM; 114230; -.
                                                                                                                                                                                                                                                                                          01-FEB-1995 (REL. 31, CREATED)
01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1B (MCP-1B) (FRAGMENT).
                                                                                                                                                                                                                                                                     BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                         P80343;
01-FEB-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
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                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                              EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                             MCPB_BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                    EICADP
                    EICAEP 53
  EICADP 6
                                                                                                                                                                                                                                                                                                                                                                                                      EICADP 85
                                                  Similarity
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                                                                                                                                (CHEMOKINE
PS00472; SN
                                       <u>ن</u>
                                                                                                                      CHEMOTAXIS; HEPARIN-BINDING.
                                                                               74 AA;
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larity 100.0%;
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; THIOL_PROTEASE_CYS; 1.
; THIOL_PROTEASE_HIS; FALSE_NEG.
; THIOL_PROTEASE_ASN; FALSE_NEG.
; PROTEASE; CALCIUM_BINDING; MULT
                                                                                                                              SMALL_CYTOKINES_CC;
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BY SIMILARITY.
BY SIMILARITY.
SITE 1 (PROBABLE).
SITE 2 (PROBABLE).
ANCESTRAL CALCIUM SITE 3
ANCESTRAL CALCIUM SITE 4
S -> G (IN REF. 2).
MR --> IE (IN REF. 2).
                                      Score 43;
Pred. No.
1; Misma
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Pred. No.
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66172F08 CRC32;
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97158E66 CRC32;
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1. No. 3.26e+00;
Mismatches 0,
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                                        Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 700;
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                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                   FAMILY (SMALL CYTOKINE
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                                        Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (POTENTIAL).
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                                                                                                                                                                       HEPARIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTIVITY.
                                                                                                                                                                                 ALSO INDUCES
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                                       Gaps
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-!- SUBCELLULAR LOCATION: EAIRCLUIC
-!- PTM: O-GLYCOSYLATED (PROBABLE).

C -!- INDUCTION: BY THE FALPHA, IL-1-ALPHA AND INTERFERON GAME
C -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMA')

C C-C) (CHEMOKINE CC).

R EMBL; U44573; G1280141; -.

PR EMBL; U44780; G1185440; -.

DR EMBL; D49372; G1552241; -.

DR EMBL; Z69291; E251275; -.

DR EMBL; Z75666; E251275; -.

DR EMBL; Z75667; E329504; -.

DR EMBL; Z75669; E251275; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
MEDLINE; 96189937.
PONATH P.D., QIN S., I
SMITH H., SHI X., GON:
MACKAY C.R.;
                                                                                                                                                                                                                                                                                               HEIN H., S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EOTA_HUMAN
P51671; P508
01-OCT-1996
01-OCT-1996
                                                                                                                                                                                                                            BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).

-i FUNCTION: IN RESPONSE TO THE PERSENCE OF ALLERGENS,
-i DIRECTLY PROMOTES THE ACCUMULATION OF BOSINOPHILS, FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.

-i SUBCELLULAR LOCATION: EXTRACELLULAR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-NOY-1997 (REL. 35, LAST ANNOTATION UPDATE)
ECTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                GARCIA-ZEPEDA E.A., ROTHENBERG M.E., MORTON C.C., LUSTER A.D.; GENOMICS 41:471-476(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KITAURA M., NAKAJIMA T., IMAI T., HARADA S., COMBADIERE C., TIFFANY H.L., MURPHY P.M., YOSHIE O.; J. BIOL. CHEM. 271:7725-7730(1996).
                       PROSITE; PS00472; SMALL_CYTOKINES_CC; EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYC
                                                                                                                                                                                                                                                                                                                                         TISSUE-LUNG
                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE-PLACENTA;
MEDLINE; 97312708.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BIOCHEM. BIOPHYS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BARTELS J., SCHLUETER CHRISTOPHERS E., SCHRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE-SMALL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GARCIA-ZEPEDA E.A.,
LUSTER A.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
               INFLAMMATORY
                                                                                                                                                                                                                                                                                                                           MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SSUE-FORESKIN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLIN.
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                                                                                                                                                                                                                                                                                                               SCHLUETER C.,
                                                                                                                                                                                                                                                                                                                             97445071.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2:449-456(1996).
 RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INTESTINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SCHROEDER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97:604-612(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ROTHENBERG M.E.,
POLYMORPHISM.
POTENTIAL.
                                                                                                                                                                                                                                                                                                              KULKE R., CHRISTOPHERS E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMMUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RICHTER R J.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            225:1045-1051(1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60-65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
H
                          GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                           WEREMOWICZ S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OWNBEY T.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AND
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              75-88, AND
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                          SIGNAL;
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                                                                                                                                                                                                                                                                                                               SCHROEDER
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                                                                                                                                                                                                                                                                                                                                                                                                           SARAFI M.N.,
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(SMALL CYTOKINE
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Best Local S
Matches
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Best Local
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DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ILT 15
MCP1_PIG
P42831;
01-NOV-1995
01-NOV-1995
15-JUL-1998
MONOCYTE CHE
MCP2_HUMAN STANDARD; PRT; 99 AA P80075; P78388; 01-DEC-1992 (REL. 24, CREATED) 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE) 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDAT) MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCHEMOATTRACTANT PROTEIN 2) (HC14).
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VARIANT
VARIANT
SEQUENCE
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DISULFID
DISULFID
VARIANT
                                                                                                                                                                                                                                                                                     EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. MEDLINE; 94183284. HOSANG K., KNOKE I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                           MOD_RES
                                                                                                                                                                                                                                              SIGNAL
                                                                                                                                                                                                                                                        CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                             NEUTROPHILS.
-!- SUBUNIT: MONOMER OR
-!- SIMILARITY: BELONGS
C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                SUBMITTED (JUL-1994)
                                                                                                                                                                                                                                                                                                                                                         TISSUE-BRAIN;
ZACH O.R.F.;
                                                                                                                                                                                                                                                                                                                                                                                                BIOCHEM. BIOPHYS. RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SCYA2
                                                                                                                                                                                                   SIMILANDE CHEMOKINE C. C. (CHEMOKINE C. C.) (CHEMOKINE C. C.) (CHEMOKINE C. C.) (CHEMOKINE CHEMOKINE) CORD (CHEMOKINE) CATORINE; SMALL_CYTOKINES_CC; 1.

ROSITE: PS00472; SMALL_CYTOKINES_CC; 1.

ROSITE: PS004772; SMALL_CYTOKINES_CC; 1.

BY SIMILARITY RESPONSE.

BY SIMILARITY CHEMOTACTIC PROTEIN 1.

MONOCYTE CHEMOTACTIC PROTEIN 1.

PVERFOLIDENT.
                                                                                                                                                                                                                                      CHAIN
                                                                                                                                                                                                                                                                  PROSITE;
                                                                                                                                                                                                                                                                              EMBL;
                                                                                                                                                                                                                                                                                                                                     SUBMITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS
                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                          73 EICAEP
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                                                                                                      EICADP
                                                                                                                                             Similarity
5; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     995 (REL. 32, CREATED)
995 (REL. 32, LAST SEQUENCE UPDATE)
998 (REL. 36, LAST ANNOTATION UPDATE)
998 (REL. 36, LAST ANNOTATION (MCP-1).
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32
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35
AA;
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larity 83.3%;
Conservative
                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                   59
75
10976 MW;
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57
73
7
23
23
51
79
10732
                                                                                                                                                      97.7%;
                                                                                                                                                                                                                                                                                                                                                                                               KLAUDINY J., WEMPE F., WUTTKE W., S. COMMUN. 199:962-968(1994).
                                                                                                                                                                                                                                                                                                        HOMODIMER; IN EQUILIBRIUM (BY TO THE INTERCRINE BETA FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WW.
                                                                                                                                            Score 43;
Pred. No.
1; Misma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EOTAXIN.

BY SIMILARITY.

BY SIMILARITY:

L -> P (IN CLONE 3

A -> T (IN CLONE 5

R -> S (IN CLONE 5

K -> R (IN CLONE 3)

K -> R (IN CLONE 3)
                                                                                                                                                                                              SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 43; DB 1; I
Pred. No. 5.42e+00;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERTEBRATA;
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                                                                                                                                              Mismatches
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                       UPDATE)
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                                                                                                                                                               DB 1;
              (MCP-2)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          TETRAPODA;
                                                                                                                                                              Length 99;
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              (MONOCYTE
                                                                                                                                             Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97;
                                                                                                                                                                                                                                                                                                                SIMILARITY)
                                                                                                                                                                                                                                                                                                         (SMALL
                                                                                                                                                                                                                                                                                                                                                                                                          SCHEIT K.H.;
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Best Local
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MCP2_PIG
P49873;
01-OCT-1996
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DISULFID
DISULFID
VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KIM K.-S.,
FEBS LETT.
                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL;
HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE;
CHANG H.C
                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                           CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                             PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE; 97053697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUBUNIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE: 92308855.

VAN DAMME J., PROOST P., LENAERTS
J. EXP. MED. 176:59-65(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE-BONE MARROW;
MEDLINE; 97224420.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VAN COILLIE E., FITEN P., I
VAN DAMME J., OPDENAKKER G
GENOMICS 40:323-331(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SCYA8 OR SCYA10 OR M
HOMO SAPIENS (HUMAN)
EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                          POLYMORPHISM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 23-99 FROM MEDLINE; 91207938.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VAN AELST I., VAN BIOCHEM. BIOPHYS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (ISSUE=OSTEOSARCOMA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AN AELST I., VAN DAMME J
                                                                                                    1 EICADP
                                                                                                                                     73 EVCADP 78
                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHO BASOPHILS AND EOSINOPHILS. MAY PLAY A ROLE IN NEOPLASIA AND INFLAMMATORY HOST RESPONSES THIS PROTEIN CAN BIND HEPARIN. SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.

TISSUE SPECIFICITY: HIGHEST EXPRESSION FOUND IN THE SMALL INTESTINE AND PERIPHERAL BLOOD CELLS. INTERMEDIATE LEVELS SETHE HEART, PLACENTA, LUNG, SKELETAL MUSCLE, THYMUS, COLON, C SPINAL CORD AND PANCREAS. LOW LEVELS SEEN IN THE BRAIN, LIVE SPLEEN AND PROSTATE.

SUBULEN AND PROSTATE.

SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTESTINE BETONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTESTINE BETA FAMILY (SMALL 
                                                    17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (-c)
                                                                                                                                                                                                                                                                                                                                                                                                                         P13500; 1MCA.
                                                                                                                                                                                                                                                                                                                                                                                                                                         -C) (CHEMOKINE CC)
X99886; E279930; I
Y10802; E294088;
                                                                                                                                                                                                                                                                                                                                                                          PS00472; SMALL_CYTOKINES_CC; CHEMOTAXIS; SIGNAL; HEPARIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SCYA10 OR MCP2.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RAJARATHNAM K., C
395:277-282(1996)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26-99
(REL. 34, CREATED)
                                                                                                                                                                     95.5%;
larity 83.3%;
Conservative
                                                                                                                                                                                                                                                       334
34
35
35
                                                                                                                                                                                                                                      AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;U F., FREEMAN G
1:388-399(1989)
                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FROYEN F., NOMIYAMA H., MIURA R.,
AN DAMME J., OPDENAKKER G.;
S. RES. COMMUN. 231:726-730(1997).
                                                                                                                                                                                                                                      11246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AND
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                                                                                                                                                                                                                                                       23
24
59
75
69
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       ALT_INIT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLARK-LEWIS
                                                                                                                                                                 Score 42;
Pred. No.
1; Misma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      G.J.,
                                                                                                                                                                                                                                                    PROBABLE.

MONOCYTE CHEMOTACTIC PROTEIN 2.

PYRROLIDONE CARBOXYLIC ACID.

BY SIMILARITY.

BY SIMILARITY.

K -> Q.
                                                                                                                                                                                                                                                                                                                                                                      (NES_CC; 1.
HEPARIN-BINDING;
                                                                                                                                                                                                                                      5DDD5C20
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                                                                                                                                                                     Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GRIFFIN
                                                                                                                                                                                   DB 1; I
8.95e+00;
                                 99
                                                                                                                                                                                                                                      CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Η.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SAKAKI Y., MIURA R., YOSHIE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OPDENAKKER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      J.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SYKES
                                                                                                                                                                     0
                                                                                                                                                                                                   Length 99;
                                                                                                                                                                                                                                                                                                                                                                        INFLAMMATORY RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REINHERZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B.D.;
                                                                                                                                                                     Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CYTOKINE
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FIRSTLA CONTROL OF THE STATE OF
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Matches
   DISULFID
DISULFID
CARBOHYD
SEQUENCE
                                                                                                                                                PROSITE;
CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MCP1_CAVPO STANDARD; PRT; 120 AA. 008782; 01-NOV-1995 (REL. 32, CREATED) 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE) 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE) MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) CHEMOATTRACTANT PROTEIN-1).
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DISULFID
SEQUENCE
                                                                                           CHAIN
MOD_RES
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15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOTYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP
CHEMOATTRACTANT PROTEIN 2).
                                                                                                                                                                                                                                                                                                                              STRAIN-Z; TISSUE-SPLEEN MEDLINE; 93267104.
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                                                                                                                                                                                     EMBL;
                                                                                                                                                                                                                     NEUTROPHILS.
-!- SUBUNIT: MONOMER OR
-!- SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                      EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                     CAVIA PORCELLUS (GUINEA PIG).
                                                                                                                                                                                                                                                                                                                                                                                                                                                           SCYA2 OR MCP1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                          ÷
                                                                                                                                                                                                                                                                                                             YOSHIMURA T.
                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -!- FUNCTION: CHEMOTACTI
CAN BIND HEPARIN.
-!- SUBUNIT: MONOMER OR
-!- SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HOSANG K.K., KNOKE SCHEIT K.K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SCYA8 OR MCP2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73 EVCADP
|:||||
1 EICADP
                                                                                                                                                                                                                                                                                              IMMUNOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Z48480; G683719;
FE; PS00472; SMAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  95091716.
                                                                                                                                                                    PS00472;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (CHEMOKINE CC).
                                                                                                                                                                                                    (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                     RODENTIA.
                                                                                                                                                  CHEMOTAXIS; SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OCHEMOTAXIS; SIGNAL; HEPARIN-BINDING;
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WE CHEMOTACTIC FACTOR THAT
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larity 83.3%;
Conservative
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                                                                                                                                                                                   G349821;
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CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES.
                                                                                                                                                               SMALL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       59
75
10903
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24
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73
97
       13741
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99
24
                                                                                                                                              CYTOKINES_CC; 1.
[GNAL; INFLAMMATORY RESPONSE;
                                                                                                                                                                                                                     HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY) TO THE INTERCRINE BETA FAMILY (SMALL CYTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
TO THE INTERCRINE BETA FAMILY (SMALL CYTOR
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       MW.
BY SIMILARITY.

MONOCYTE CHEMOTACTIC PRO
PYRROLIDONE CARBOXYLIC P
SIMILARITY).

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

POTENTIAL.

W; 22FAD257 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 42; DB 1;
Pred. No. 8.95e+
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BY SIMILARITY.
BY SIMILARITY.
B7620BCF CRC32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BY SIMILARITY MONOCYTE CHEM
                                                                                                                                                                                                                                                                                                                                                                                                                      VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERTEBRATA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 1; Lens
. 8.95e+00;
-hes 0;
                                                                                                                                                                                                                                                                          ATTRACTS MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHEMOTACTIC PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WEMPE F.F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOXYLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -2) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INFLAMMATORY RESPONSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (MONOCYTE
                                                                                                            PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACID
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                                                                                                                                                  GLYCOPROTEIN.
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                                                                                           (BY
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                                                                                                                                                                                                                       CYTOKINE
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Best Local S
Matches
                                                                                                                                                        Matches
                                                                                                                                                                                          Query Match
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ROLLINS B.J.,
PROC. NATL. AC
                                                                                                                                                                                                                                                                       DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P10148;
01-MAR-1989 (REL. 10, CREATED)
01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE;
                                                                                                                                                                                                                                                                                                                                                   SIGNAL
CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PIR; A30209; A30209.
PIR; A30861; A30861.
PIR; S16226; S16226.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE; 91293127.

VAN DAMME J., DECOCK B., BERTINI R., PUT W., OPDENAKKER G., MANTOVANI A.; EUR. J. BIOCHEM. 199:223-229(1991).
MIP4_HUMAN
                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; J04467; G387169; -. EMBL; M19681; G387168; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GROWTH FACTOR-INDUCIBLE PROTEIN JE). SCYA2 OR MCP1 OR JE.
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                                                                                                                                                                                                                                                                                                                                 MOD_RES
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                                                                                                                                                                                                                                                                                                                                                                                                           MGD; MGI:98259; SCYA2.
PROSITE; PS00472; SMAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ---
                                                                                                                                                                                                                                                                                                                                                                                           YTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   SSP;
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                                                                                                                73 EVCADP 78
                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WAHARA R.S., DEUEL T.F.;
BIOL. CHEM. 264:679-682(1989).
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1 EICADP 6
                                                                            1 EICADP
                    20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
INDUCTION: BY PLATELET-PERIVED GROWTH FACTOR.
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     P13500;
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89093129.
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                                                                                                                                                                                                                                                                                                                                                                                         CHEMOTAXIS; SIGNAL;
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35
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148
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24
                                                                                                                                                        Conservative
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                                                                                                                                                                                                                                     AA.
  STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                         SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                     59
75
126
                                                                                                                                                                                                                                                                                                                                                   23
148
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83.3%;
                                                                                                                                                                          95.5%;
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                                                                                                                                                                                                                                                                                                                             24
                                                                                                                                                                                                                                     16326
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Pred. No.
1; Misma
                                                                                                                                                      Pred.
1; 1
                                                                                                                                                                                                                                                                       SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                        Score 42; DB 1; I
Pred. No. 8.95e+00;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STILES C.D.;
. 85:3738-3742(1988).
                                                                                                                                                                                                                                                                                                                             MONOCYTE CHEMOTACTIC PROTEIN PYRROLIDONE CARBOXYLIC ACID
                                                                                                                                                                                                                                                                                                                                                                     INFLAMMATORY RESPONSE; GLYCOPROTEIN. BY SIMILARITY.
                                                                                                                                                                                                                                                       POTENTIAL.
  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                                                                B7572BBC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           . No. 8.95e
Mismatches
                                                                                                                                                      Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CONINGS R., LENAERTS J.-P.,
  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       J.95e+00;
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TETRAPODA;
                                                                                                                                                                                          Length 148;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 120;
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                                                                                                                                                      Indels
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                                                                                                                                                                                                                                                                                                                             ROTEIN 1.
ACID (BY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BUT NOI
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Best Local S
Matches
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SEQUENCE FROM N.A.
1997) TO E
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HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CH
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                  DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P55774;
p1-707-1997 (REL. 35, CREATED)
01-NOY-1997 (REL. 35, LAST SEQUENCE UPDATE)
15-UTL-1998 (REL. 35, LAST SEQUENCE UPDATE)
15-UTL-1998 (REL. 35, LAST SEQUENCE UPDATE)
16-UTL-1998 (REL. 36, LAST SEQUENCE UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND ACTIVATION REGULATED CHEMOKINE) (CC CHEMOKINE PARC) (ALTERNATIVE ACTIVATED MACROPHAGE ASSOCIATED CC CHEMOKINE 1) (AMAC-1).
                                                                                  MIT 21
P50230;
P50230;
01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR
                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WELLS T.N.C., PEITSCH M.C.;

J. LEUKOC. BIOL. 61:345-550(1997).

J. LEUKOC. BIOL. 61:345-550(1997).

J. LEUKOC. BIOL. 61:45-550(1997).

J. LEUKOC. BIOL. 61:45-550(1997).

J. LEUKOC. BIOL. 61:45-550(1997).

MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN INTO B CELL FOLLICLES IN LYMPH MODES.

J. LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES

LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
TISSUE-AORTA, AND LUNG;
MEDLINE; 97376836.
HIESHIMA K., IMAI T., BABA M., SHOUDAI K., ISHIZUKA K.,
NAKAGAWA T., TSURUTA J., TAKEYA M., SAKAKI Y., TAKATSUKI K.,
MIURA R., OPDENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA H
J. IMMUNOL. 159:1140-1149(1997).
                          RATTUS NORVEGICUS (RAT).
EUKARYOTA; METAZOA; CHOR
EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; AB000221; D1022520; -.
EMBL; Y13710; E321838; -.
PROSITE; PS00472; SMALL_CYTO
                                                                       SCYA4 OR MIPLB
                                                                                                                                                                                                                                                                                                                                                                            CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           THYMUS AND APPENDIX.
-1- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS)
-1- SIMILARITY: BELONGS TO THE INTERCRINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PATENT NUMBER US5504003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                       CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISCUSSION OF SEQUENCE.
                                                                                                                                                                                                                                             68 QICADP 73
                                                                                                                                                                                                                  1 EICADP
                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                               (CHEMOKINE CC)
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31
                                                                                                                                                                                                                                                                                                                                   AA;
                                                                                                                                                                                                                                                                                                                                                                                                                     SMALL_CYTOKINES_CC;
                                                                                                                                                                                                                                                                                                                                   9849 MW;
                                                                                                                                                                                                                                                                                       93.2%;
                                         CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                54
54
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                                                                                                                                                                                                                                                                                                                                                                                                        INFLAMMATORY RESPONSE; SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                POLITZ O., HAKIY N., ORFANOS C.E., EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                       Score 41; DB 1; I
Pred. No. 1.46e+01;
                                                                                                                                                                                                                                                                                                                                MACROPHAGE INFLAMMATORY PROTEIN
BY SIMILARITY.
BY SIMILARITY.
052AA3DC CRC32;
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                                         VERTEBRATA;
                                                                                                                                                                                                                                                                           Mismatches
                                           TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                   Length 89;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LYMPHOCYTES BUT NOT IN B CELL MIGRATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IN THE LUNG. A LOWER SUCH AS LYMPH NODES,
                                                                                     (MIP-1-BETA)
                                                                                                                                                                                                                                                                         Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
CHAIN
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE; 95298037.
SHI M.M., GODLFCVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MI1A_RAT
P50229;
01-0CT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
                                                                                                               EMBL; U22414; G790633;
EMBL; U06435; G459150;
PROSITE; PS00472; SMALI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR
                                                                                                                                                                                                                                                                                                                                                                                                                               NAKAGAWA H., SHIOTA S. BIOCHEM. BIOPHYS. RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE; 95238980.
SHANLEY T.P., SCHMAL H., FRIEDL
J. IMMUNOL. 154:4793-4802(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. STRAIN-LONG EVANS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RATTUS NORVEGICUS (RAT).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SCYA3 OR MIP1A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C-C) (CHEMOKINE CC).
EMBL; U06434; G459148; -
PROSITE; PS00472; SMALL_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN-LONG EVANS; TISSUE-LUNG;
JONES M.L., SHANLEY T.P., SCHMAL H., FRIEDL H.P., WARD P.A.;
SUBMITTED (FEB-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- EUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
-!- SUBUNIT: HOMODIMER (BY SIMILARITY).
-!- SUBUNIT: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                   SIGNAL
                                                                                          CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-WISTAR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 24-57.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BIOCHEM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              72 QICADP 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 EICADP
                                                                                                                                                                                                                                                          AGAMA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;
AGAMA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;
CHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).
CHEMOTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPHILS;
HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPHILS;
PASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LUNG TNF-ALPHA
PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND
MAY FUNCTION AS AN AUTOCRINE MEDIATOR FOR THE MACKOPHAGE
PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGULATES VASCULAR
ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFLUX. THIS PROTEIN
                                                                                                                                                                                  (2-D
                                                                                                                                                                                                   INDUCTION: BY LIPOPOLYSACCHARIDE (LPS) SIMILARITY: BELONGS TO THE INTERCRINE
                                                                                                                                                                                  (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ONG EVANS;
95238980.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BIOPHYS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96183056
                                                                                          PS00472; SMALL_CYTOKINES_CC; CHEMOTAXIS; INFLAMMATORY RE
                                                                                                                                                                                                                                                 HEPARIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GODLESKI J.J., PAULAUSKIS J.D.;
BIOPHYS. RES. COMMUN. 211:289-295(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  92
    3541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                      G459150; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ĀΑ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SMALL_CYTOKINES_CC; 1.
XIS; INFLAMMATORY RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE-LUNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10234
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58
74
    23
92
57
73
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FRIEDL H.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 41; DB 1;
Pred. No. 1.46e+01
1; Mismatches
MACROPHAGE INFLAMMATORY
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BY SIMILARITY.
BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3C82B006
                                                                                     CC; 1.
RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JONES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         92
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                                                                                                                                                                                              BETA FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    M.L.,
                                                                                   SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WARD P.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (MIP-1-ALPHA).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                        HEPARIN-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MAMMALIA;
                                            PROTEIN 1-ALPHA
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-!- SUBUNIT: MONOMER OR HO
-!- SIMILARITY: BELONGS TO
C-C) (CHEMOKINE CC).

EMBL; S67954; E118856; -..

EMBL; S67956; G544997; -...
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CONFLICT
SEQUENCE
KLENK H.-P., CLAYTON R.A., TOMB J.-F., WHITE O., KETCHUM K.A., DODSON R.J., GWINN M., HICKEY E.K., RICHARDSON D.L., KERLAVAGE A.R., GRAHAM D.E., KYR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MCP2_BOVIN
Q09141;
                                                                                                                                                                                                              ALAS OR AF2255.
ARCHAEOGLOBUS FULGIDUS
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WEMPE F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
                                                                                 MEDLINE;
                                                                                                         STRAIN-VC-16
                                                                                                                                                                                        ARCHAEBACTERIA;
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SCYA8 OR MCP2
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                                                                                                                                    EQUENCE FROM N.A.
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                                                                              C-16 / DSM 4304 /
98049343.
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                                                                                                                                                                                     EURYARCHAEOTA;
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. 36, LAST SEQU
. 36, LAST ANNO
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TO THE INTERCRINE BETA FAMILY (SMALL CYTO
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                                                                                                         ATCC
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                                                                                                                                                                                                                                                                 SEQUENCE UPDATE)
ANNOTATION UPDATE)
6.1.1.7) (ALANINE--TRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred.
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 41; DB 1;
Pred. No. 1.46e+01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; HEPARIN-BINDING; INFLAMMATORY BY SIMILARITY.

MONOCYTE CHEMOTACTIC PROTEIN 2.

PYRROLLDONE CARBOXYLIC ACID (BY SIMILARITY).
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BY SIMILARITY.
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1.46e+01;
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  O., NELSON K.E., E.K., PETERSON J., KYRPIDES N.C.,
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                           J.D.,
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P53574;
01-OCT-1996
01-OCT-1996
01-NOV-1997
     GALLUS GALL EUKARYOTA;
                                              MI1B_CHICK STANDARD; PRT; 90 AA. 090826; 01-NOV-1997 (REL. 35, CREATED) 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE) 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE) MACROPHAGE INFLAMMATORY PROTEIN 1-BETA HOMOLOG PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FLEISCHMANN R.D., OUACKENBUSH J., LEEN.H., SUTTON G.G., GILL S., KIRKNESS E.F., DOUGHERTY B.A., MCKENNEY K., ADAMS M.D., LOFTUS B., PETERSON S., REICH C.I., MCNEIL L.K., BADGER J.H., GLODEK A., ZHOU OVERBEER R., GOCAYME J.D., WEIDMAN J.F., MCONALD L., UTTERBACK T., COTTON M.D., SPRIGGS T., ARTIACH P., KARINE B.P., SYKES S.M., SADOW P.W., D'ANDREA K.P., BOWMAN C., FUJII C., GARLAND S.A., MASON T.M., OLSEN G.J., FRASER C.M., SMITH H.O., WOESE C.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ELECTRON TRANSPORT; FĀD; NITROGEN FIXATION.
NP_BIND 293 321 FAD (ADP PART)
SEQUENCE 360 AA; 39030 MW; 044091DA CRC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FIXATION.
-!- SUBUNIT: FIXA AND FIXB FORM A HETERODIMER (PROBABLE)
-!- SIMILARITY: BELONGS TO THE ETF ALPHA-SUBUNIT / FIXB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-ATCC 478;
WIENTJENS R., VAN DONGEN W., HAAKER H.;
SUBMITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
-i- EUNCTION: MAY PLAY A ROLE IN A REDOX PROCESS INVOLVED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00179; AA_TRNA_LIGASE_II_1; FALSE_NEG.
PROSITE; PS00339; AA_TRNA_LIGASE_II_2; FALSE_NEG.
AMINOACYL-TRNA SYNTHETASE; PROTEIN BIOSYNTHESIS; LIGASE; ATP-BINDING.
SEQUENCE 906 AA; 102536 MW; 54E57B4C CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -!- SUBCELLULAR LOCATION: CYTOPLASMIC.

-!- SIMILARITY: BELONGS TO CLASS-II AMINOACYL-TRNA

EMBL; AE00949; G2648270; -.

TIGR; AF2255; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VENTER J.C.;

NATURE 390:364-370(1997).

-i- CATALYTIC ACTIVITY: ATP + L-ASPARTATE +
-i- PYROPHOSPHATE + L-ASPARTYL-TRNA(ASP).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -!- SIMILARITY: BELONGS TO THE EMBL; X65515; G510486; -. PROSITE; PS00696; ETF_ALPHA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AZOTOBACTER VINELANDII. PROKARYOTA; GRACILICUTES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AZOTOBACTERIACEAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FIXB PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               38 EICGDP 43
|||:||
1 EICADP 6
                                                                                                                                                                                                                                                                                                72 EICGEP 77
|||::|
1 EICADP 6
                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                              GALLUS (CHICKEN)
        METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (REL.
(REL.
                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    34, CREATED)
34, LAST SEQUENCE UI
35, LAST ANNOTATION
                                                                                                                                                                                                                                                                                                                                                                                                                              90.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                93.2%;
CHORDATA; VERTEBRATA; TETRAPODA; AVES; NEOGNATHAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SCOTOBACTERIA; AEROBIC
                                                                                                                                                                                                                                                                                                                                                                                                                              Score 40; DB 1; 1
Pred. No. 2.38e+01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 41; DB 1;
Pred. No. 1.46e+01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              044091DA CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (POTENTIAL)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 906;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 360;
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                                                                                                                                                                                                                                                                                                                                                                                                     0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                     Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AND COCCI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IN NITROGEN
                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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Best Local Similarity
Matches 4; Conser
                                                                                                 SEQUENCE FROM N.A. MEDLINE; 89093958. BROWN K.D., ZURAWSK J. IMMUNOL. 142:679
                                                                                                                                                                                                                                                                                                MIIB_HUMAN STANDARD; PRT; 92 AA.

P13236; P22617; Q13704;

01-JAN-1990 (REL. 13, CREATED)

01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)

01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)

01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)

ACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA) (T-CELL ACTIVATION PROTEIN 2) (ACT-2) (PAT 744) (H400) (SIS-GAMMA) (LYMPHOCYTE ACTIVATION GENE-1 PROTEIN) (LAG-1) (HC21) (SMALL INDUCIBLE CYTOKINE ACA) (G-26 T LYMPHOCYTE-SECRETED PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DISULFID DISULFID
                              SEQUENCE FROM N.A.

MEDLINE; 91061800.

BAIXERAS E., ROMAN-ROMAN S., JITS

VIEGAS-PEQUICNOT E., HERCEND T.,

VIEGAS-PEQUICNOT E., 11091-1102(1990).
                                                                                                                                                        SEQUENCE FROM N.A.

MEDLINE; 89140347.

ZIPFEL P.F. BALKE J., IRVING S
J. IMMUNOL. 142:1582-1590(1989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C-C) (CHEMOKINE CC).

EMBL; L34553; G509506; -.

PROSITE; PS00472; SMALL_CYTOKINES_CC;

CYTOKINE; CHEMOTAXIS; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 14-90 FROM N.A.

PETRENKO O., ENRETTO P.J.;

SUBMLITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.

-!- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-BONE MARROW;
MEDLINE; 95369710.
PETRENKO O., ISCHENKO I.,
GENE 160:305-306(1995).
                                                                                                                                                                                                               SEQUENCE FROM N.A.
MEDLINE; 89071764.
LIPES M.A., NAPOLITANO
PROC. NATL. ACAD. SCI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GALLIFORMES
[1]
TISSUE-T-CELL;
          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                       EUTHERIA;
                                                                                                                                                                                                                                                                                  EUKARYOTA;
                                                                                                                                                                                                                                                                                              HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -!- SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        70 EVCANP 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 EICADP
                                                                                                                                                                                                                                                                       PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             90 AA;
                                                                                                  ZURAWSKI S.M., MOSMANN 142:679-687(1989).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22
32
33
87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9969 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             88.6%;
                                                                                                                                                                                                                                                                                  CHORDATA;
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90
56
72
87
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                                                                                                                                                                                                               JEANG K.-T., CHANG N.T., A. 85:9704-9708(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIMILARITY).
THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MACROPHAGE INFLAMMATORY F
BY SIMILARITY.
BY SIMILARITY.
L -> M (IN REF. 2).
B5637084 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 39; DB 1; 1
Pred. No. 3.82e+01
2; Mismatches (
                                           JITSUKAWA S., G
T., TRIEBEL F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BY SIMILARITY.
                                                                                                                                                                   s.G.,
                                                                                                                                                                                                                                                                                  VERTEBRATA;
                                                                                                              T.R.,
                                                                                                                                                                     KELLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>بـــا</u>
•
                                                                                                              ZURAWSKI
                                                                                                                                                                     .
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                                                                                                                                                                                                                                                                                  TETRAPODA;
                                                     GENEVEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 90;
                                                                                                                                                                     SIEBENLIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
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                                                     <u>ر</u>.
                                                                                                                                                                                                                           LEONARD
                                                                                                                                                                                                                                                                                  MAMMALIA
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                                                       MECHICHE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                           W.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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                                                                   Query Match
Best Local S
Matches
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EMBL: M23502: G533213; -.

EMBL: M25316: G602455; -.

EMBL: M25316: G602455; -.

EMBL: X53683: G34218; -.

EMBL: X53683: G34218; -.

EMBL: X53683: G34218; -.

EMBL: X53682: E35870; ALT_SEQ.

EMBL: X53602: E332376; -.

EMBL: M69203: G1332376; JOINED.

EMBL: M69201: G1332376; JOINED.

EMBL: M69202: G1332376; JOINED.

EMBL: M69202: G1332376; JOINED.

EMBL: M69202: G1332376; JOINED.

EMBL: M69202: G1332376; JOINED.

EMBL: M69203: M69203: M69203; JOINED.

EMBL: M69203: M692
                                                                                                                                                                                       CONFLICT
CONFLICT
STRAND
STRAND
HELIX
STRAND
STRAND
STRAND
                                                                                                                                                                                                                                                                                                                                                 PROSITE; F
CYTOKINE;
SIGNAL
CHAIN
DISULFID
DISULFID
CONFLICT
CONFLICT
CONFLICT
CONFLICT
                                                                                                                                        SEQUENCE
                                                                                                                                                                            TURN
                                                                                                                                                                                                                                                                                                                                   CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LODI P.J., GARRETT D.S., KUSCEWSKI J., TSANG LEONARD W.J., GRONENBORN A.M., CLORE G.M.; SCIENCE 263:1762-1767(1994).
-i- FUNCTION: MONOKINE WITH INFLAMMATORY AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PDB; 1HUM; 30-APR-94.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
MEDLINE; 91373378.
NAPOLITANO M., MODI W.S.,
LEONARD W.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE; 89325421
CHANG H.C., REINHI
EUR. J. IMMUNOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE; 90038522.
MILLER M.D., HATA S., WAAL MALEFYT
J. IMMUNOL. 143:2907-2916(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE OF 6-92 FROM N.A.
                                                                                     Local Similarity
                                  72 QVCADP 77
 1 EICADP 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INDUCTION: BY MITOGENS, SIMILARITY: BELONGS TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUBUNIT: HOMODIMER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       94182137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PS00472; SMALL_CYTOKINES_CC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHEM. 266:17531-17536(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHEMOTAXIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REINHERZ E.L.;
UNOL. 19:1045-1051(1989).
                                                                     Conservative
                                                                                     88.6%;
                                                                                                                                        10212
                                                                                                                                                          90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFLAMMATORY
                                                                                                                                          ¥.
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                                                                                                                                                                                                                                                                                         MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
BY SIMILARITY.
BY SIMILARITY.
T -> C (IN REF. 7).
A -> S (IN REF. 6).
P -> L (IN REF. 2).
ARKLPR -> REASS (IN REF. 3).
S -> I (IN REF. 7).
S -> G (IN REF. 6).
S -> T (IN REF. 7).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               THE
                                                                 Score 39; DB 1;
Pred. No. 3.82e+01
2; Mismatches
                                                                                                                                        F18E7AFD CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INTERCRINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESPONSE; SIGNAL; 3D-STRUCTURE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R., KRANGEL M.S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GNARRA J.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CHEMOKINETIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     M.L.S.,
                                                                                                   Length 92;
                                                                   0
                                                                   Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WEATHERBEE J.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROPERTIES
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RESULT RESULT REPORT OF THE SULT RESULT RESU
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Best Local Similarity
Matches 4; Conser
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EMBL; D00044; D1000469; -.

EMBL; M23452; G188559; -.

EMBL; M25315; G602453; -.

EMBL; X03754; G758089; -.

EMBL; X03178; G34297; ALT_SEQ.

EMBL; M23178; G182847; -.

EMBL; D90144; G219906; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MI1A_HUMAN STAN
P10147;
01-MAR-1989 (REL. 1
01-MAR-1989 (REL. 1
01-OCT-1996 (REL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           O1-MAR-1989 (REL. 10, CREATED)
01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
01-CCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA)
(TONSILLAR LYMPHOCYTE LD78 ALPHA PROTEIN) (G0S19-1 PROTEIN) (SIS-BETA)
(PAT 464.1) (SMALL INDUCIBLE CYTOKINE A3).
SCYA3 OR MIPIA.
LT 29
MI10_HUMAN
P16619;
                                                                                                                                                                                                                                                                                                        DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                 HSSP; P13
MIM; 1822
PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA CELL
                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAKAO M., NOMIYAMA H., SHIMADA K.;

MOL. CELL. BIOL. 10:3646-3658 (1990).

MOL. CELL. BIOL. 10:3646-3658 (1990).

-i- FUNCTION: MONGKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.

-i- INDUCTION: BY TPA OR PHA (TPA = 12-O-TETRADECANOYL PHORBOL-13

-I- INDUCTION: BY TPA OR PHA (TPA = PHYTOHEMAGGLUTININ (T-CELL

ACCIATE (TUMOR PROMOTER); PHA = PHYTOHEMAGGLUTININ (T-CELL
                                                                                                                                                                                                                                                                                                                                                                                  CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -!- SIMILARITY: LD78-ALPHA AND
-!- SIMILARITY: BELONGS TO THE
C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. MEDLINE; 90287155.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
MEDLINE; 91103879.
BLUM S., FORSDYKE R.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE: 89140347.
MEDLINE: 89140347.
ZIPFEL P.F., BALKE J., IRVING S.O.
J. IMMUNOL. 142:1582-1590(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
MEDLINE; 86223879.
OBARU K., FUKUDA M., MAEDA S.,
J. BIOCHEM. 99:885-894(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                CYTOKINE;
                                                                                                                                                               71 QVCADP 76
                                                                                                                     Н
                                                                                                                     EICADP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P13236; 1HUM.
                                                                                                                                                                                                                                                                                                                                                                                                                      PS00472; SMALL_CYTOKINES_CC; 1.
; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BIOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIMATES
                                                                                                                                                                                                                                                                                                          92
                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                          A
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                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                          10085 MW;
                                                                                                                                                                                                                                   88.6%;
                                                                                                                                                                                                                                                                                                                                     92
57
73
                                                                                                                                                                                                           Score 39; DB 1;
Pred. No. 3.82e+
2; Mismatches
                                                                                                                                                                                                                                                                                                                              POTENTIAL.
MACROPHAGE INFLAMMATORY
BY SIMILARITY.
BY SIMILARITY.
                          PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S.G., KELLY K., SIEBENLIST U.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -BETA ARE VERY CLOSELY RELATED.
INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SHIMADA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 D.R.;
                                                                                                                                                                                                                                      No. 3.82e+01
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Best Local
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EMBL; X52149; G296666; -.
EMBL; M24110; G18.8849; -.
EMBL; D90145; G219908; -.
PIR; B3908; B30908.
PIR; B39412; B30412.
PIR; B35673; B35673.
PIR; B31577; S10157.
HSSE: B17256; 110177
                                                                                                                                                                                                                  P28291;

01-DEC-1992 (REL. 24, CAREATED)

01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)

01-DEC-1995 (REL. 32, LAST ANNOTATION UPDATE)

01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)

MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC SEMINAL FLUID PROTEIN).

SEMINAL FLUID PROTEIN).

BOS TAURUS (BOVINE).

BOS TAURUS (BOVINE).

EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;

EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHAIN
DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; P
CYTOKINE;
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                           SEQUENCE FROM N.A.
TISSUE-SEMINAL PLASMA;
TELSUE-SEMINAL PLASMA;
MEDLINE; 92096117.
WEMPE F., HENSCHEN A., SCHEIT K.H.;
DNA CELL BIOL. 10:671-679(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE; 90287702.
MEDLINE; 90287702.
IRVING S.G., ZIPFEL P.F., BALKE J., MCBRIDE BURD P.R., SIEBENLIST U., KELLY K.; NUCLEIC ACIDS RES. 18:3261-3270(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HSSP; P13236; 1HUM.
MIM; 601395; -.
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01-AUG-1990 (REL. 15, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
TONSILLAR LYMPHOCYTE LD78 BETA PROTEIN PRECURSOR (GOS19-2 PROTEIN)
(PAT 464.2).
SCYA3L1 OR 464.2.
   DNA
[2]
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EUKARYOTA; METAZOA; C
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      72 QVCADP 77
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91103879.
FORSDYKE R.E., FORSDYKE D.R.;
BIOL. 9:589-602(1990).
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58
74
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2; 1
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BY SIMILARITY.
BY SIMILARITY.
21EDDB04 CRC32;
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Search completed: Thu Job time: 11 secs.
                                                                                                                                       Query Match
Best Local S
Matches
                                                                                                                                                                                                                 C-C) (CHEMOKINE CC).

EMBL; L33659; G624394; -.

EMBL; M84602; G163395; -.

PIR; A39296; A39296.

PIR; JC2336; JC2336.
                                                                                                                   DISULFID
DISULFID
SEQUENCE
                                                                                                                                                          CHAIN
MOD_RES
                                                                                                                                                                                        PROSITE; F
                                                                                                                                                                                                                                                                                      WEMPE F., KUHLMANN J.K., SCHEIT K.H.;
BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
-I- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT
                                                                                                                                                                                                                                                                                                                                          BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
TISSUE-SEMINAL PLASMA;
MEDLINE; 92181448.
WEMPE F., EINSPANIER R
                                                                                                                                                                              SIGNAL
                                                                                                                                                                                                                                                                      NEUTROPHILS.
-!- SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. MEDLINE; 94338337.
                                                                                                                                                                                                           HSSP; P13500; 1MCA
                                                           73 ELCADP 78
                                        1 EICADP
                                                                                       Similarity
                                                                                                                                                                                        CHEMOTAXIS;
                                                                                                                     99
                                        σ
                                                                                                                34
35
AA;
                                                                               Conservative
          Apr
                                                                                                                                                                                                SMALL_CYTOKINES_CC;
                                                                                                                 59
75
11114 MW;
                                                                                       88.6%;
                                                                                                                                                        23
24
           μ
                                                                                                                                                                                        SIGNAL.
                                                                                                                                                                                                                                                                       or
           07:28:41 1999
                                                                                                                                                                                                                                                                      THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                  BY SIMILARITY.

MONOCYTE CHEMOTACTIC PRO
PYRROLLDONE CARBOXYLIC A
SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
C8F5821D CRC32;
                                                                             Score 39; DB 1;
Pred. No. 3.82e+01
1; Mismatches
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                                                                                               Length 99;
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(BY
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1 44 100.0 93 4 000626 2 44 100.0 700 11 054843 3 43 97.7 92 11 088430 CC CHEMONIN 2 (80KDA M-CAL 5.18e+00 3 43 97.7 92 11 088430 CC CHEMONIN EABCD-1. 1.03e+01 4 42 95.5 64 1 027064 HYPOTHETICAL 7.1 KD PR 1.71e+01 5 41 93.2 258 10 081519 T24M8.10 PROTEIN. 2.81e+01 6 41 93.2 1009 2 054567 DOTO. 2.81e+01 9 40 90.9 283 2 032439 SERINE PROTEASE PRECUR 4.59e+01 10 40 90.9 314 5 045748 T05D4.2. 4.59e+01 11 40 90.9 354 2 005748 T05D4.2. 4.59e+01 12 40 90.9 354 2 005748 T05D4.2. 4.59e+01 13 40 90.9 554 2 075748 FTRB. 4.59e+01 14 40 90.9 554 2 005748 PTRB. 4.59e+01 15 39 88.6 80 4 004745 PTRB. 4.59e+01 16 39 88.6 80 4 004745 LD78 ALPHA BETA PRECUR 7.43e+01 17 39 88.6 640 11 008688 CALPAIN 5 (CALPAIN-LIK 7.43e+01 18 39 88.6 1192 14 056043 SECKENT S2 P2. 7.43e+01 19 38 86.4 123 11 Q61854 MAST CELL GROWTH FACTO 1.19e+02	Pred. No. is the number of results score greater than or equal to the and is derived by analysis of the SUMMARI No. Score Match Length DB ID	Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd  MPsrch_pp protein - protein database search, using Smith-Waterman algorithm  Run on: Thu Apr 1 07:28:58 1999; MasPar time 4.51 Seconds  Tabular output not generated.  Title: >US-08-927-939-8 Description: (1-6) from US08927939.pep  Perfect Score: 44 Sequence: 1 EICADP 6  Scoring table: PAM 150 Gap 15	
99998888888877654 9999888888888 99998876 999989876 999989876 999989			
81. 82. 83. 84. 85. 86. 86. 86. 86. 86. 86. 86. 86. 86. 86		 	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
424 2 453 2 510 1 515 3 516 1 517 1 518 3 519 1 519 1 670 1 670 1 670 1 698 4 774 1 863 1 863 1 995 1			
P95084 Q54751 Q54775 Q54775 Q54775 Q54775 Q54775 Q54775 Q54775 Q54775 Q64816 Q64816 Q64816 Q64811		014767 093574 P78509 Q60841 074056 015467 P95412 0665412 0665412 0665412 068970 070470	029340 Q05391 Q64384 Q64222 P97323 Q62532 Q62532 Q62532 Q62533 Q62533 Q62533 Q62533 Q62533
HYPOTHETICAL 44.9 KD P 2.98 HYPOTHETICAL 49.2 KD P 2.98 ARYL HYDOTACARBON RECEP 2.98 BIOTIN CARBOXYLASE. 2.98 BRAIN AROMATASE. 2.98 BRAIN AROMATASE. 2.98 REQUIRED FOR VACUOLE S 2.98 NONSTRUCTURAL PROTEIN 2.98 NONSTRUCTURAL PROTEIN 2.98 ACYL-COA SYNTHETASE 4 2.98 ACYL-COA SYNTHETASE 4 2.98 ACYL-COA SYNTHETASE 1 2.98 CODED FOR BY C. ELEGAN 2.98 ENVELOPE PRECURSOR (FR 2.98 ENVELOPE PRECURSOR 2.98 ENVELOPE 2.98 ENV		LATENT TRANSFORMING GR 1.11 REELIN. 1.11 REELIN. 1.11 REELIN. 1.11 HYPOTHETICAL 367.1 KD 1.11 IL-10-INDUCIBLE CHEMOK 1.88 ENDOGLUCANASE. 1.88 CALPAIN LP82. 1.88 CALPAIN LP82. 1.88 CALPAIN ISOFORM LP85. 1.88 MUSCLE TYPE CALPAIN P9 1.88 MUSCLE TYPE CALPAIN Y122 1.88 CORKSCREW PROTEIN Y122 1.88 CORKSCREW PROTEIN Y122 1.88 COSMID F20D12. 1.89 INVERSIN. 1.89 SORTILIN-RELATED RECEP 1.88 SORTILIN-RELATED RECEP 1.89 SORTILIN-RELATED RECEP 1.89 SORTILIN-RELATED RECEP 1.89	HYPOTHETICAL 15.3 KD P 1.11 URF 7 PROTEIN (FRAGMEN 1.11 MAST CELL GROWTH FACTO 1.11 C-KIT LIGAND TRUNCATED 1.11 MAST CELL GROWTH FACTO 1.11 MATOTIC CHECKPOINT CON 1.11
2.98e+02 2.9		19e+0 19e+0	19e+0 19e+0 19e+0 19e+0 19e+0 19e+0 19e+0 19e+0 19e+0

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Best Local (
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                                                                                                                                                                                                                                   O54843;
O54843;
O54843;
O1-JUN-1998 (TREMBLREL. 06,
O1-JUN-1998 (TREMBLREL. 06,
O1-NOV-1998 (TREMBLREL. 08,
CALPAIN 2 (80KDA M-CALPAIN S
CAPN2 OR CALPAE.
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000626
000626;
01-JUL-1997
                                                                                                                                                MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
TISSUE-NERVOUS SYSTEM;
GLASS J.D., NASH N.R., DRY I., CULVER D.,
SUBMITTED (JUL-1997) TO EMBL/GENBANK/DDBJ
EMBL; AF015038; G2735951; ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.; "Homo sapiens Chromosome 16 BAC clone CIT987SK-A-152E5."; SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
CHANG M.S., MCNINCH J., ELIAS III C., MANTHEY C.L., (CHANG T., BOONE T., ANDREW D.P.;
MENG T., BOONE T., ANDREW D.P.;
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS
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EUKARYOTA; METAZOA; CHORDATA;
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ALDREDGE T., BASHIRZADEH R., BLAKELY D., COOK R., GILBERT K.,
HARRISON D., HOANG L., KEAGLE P., LUMM W., POTHIER B., QIU D.,
SPADAFORA R., VICARE R., WANG Y., WIERZBOWSKI J., GIBSON R., JIWANI N.,
CARUSO A., BUSH D., SAFER H., PATWELL D., PRABHAKAR S., MCDUGALL S.,
SHIMER G., GOYAL A., PIETROVSKI S., CHURCH G.M., DANIELS C.J.,
MAO J.-I., RICE P., NOLLING J., REEVE J.N.;
"Complete genome sequence of Methanobacterium thermoautotrophicum
deltah; functional analysis and comparative genomics.";
J. BACTERIOL. 179:7135-7155(1997).
EWBL, AE000872; G2622084; "."
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SEQUENCE 700 AA; 79871
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SCHANIEL C., PARDALI E.,
SHIMIZU T., SEIDL T., AN
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                                                                                                                                                                                                          SEQUENCE FROM N.A.
STRAIN-DELTA H;
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Local Similarity 100.0%;
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3L; AF052505; G3378116
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Similarity 83.3%;
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A; 10302 MW;
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SUM R., LIN S.-F., MILLER G.;
SUBMITTED (SEP-1996) TO EMBL/GENBANK/DDBJ DA
EMBL; U75698; G1718266; -.
EMBL; U74585; G1658273; -.
EMBL; U93872; G2246546; -.
EMBL; U9386; G3551763; -.
EMBL; U71366; G3551763; -.
PFAM; PP00048; 118; 1
HYPOTHETICAL PROTEIN.

SEQUENCE 95 AA; 10485 MW; 5283348D CRC32
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Q98158 PRELIMINARY;
Q98158; 012569;
01-FEB-1997 (TREMBLREL. 02
01-JUL-1997 (TREMBLREL. 04
01-NOV-1998 (TREMBLREL. 06
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PARRY J.P.,
                                                                                                                                                                                                                                                                                                                                                        NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B.; "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus human herpesvirus 8: determinants of its pathogenicity?"; J. VIROL. 71:4187-4192(1997).
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PARRY J.P., PERUZZI D., EDI
SUBMITTED (MAY-1997) TO EMI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  genes by KSHV.";
SCIENCE 274:1739-1744(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. MEDLINE; 97296220.
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74 QICADP
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llarity 83.3%;
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                                   Score 41; DB 14;
Pred. No. 2.81e+01;
1; Mismatches 0
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Pred. No. 1.71e+01;
1; Mismatches 0;
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                                                                                                                        5283348D CRC32;
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.S.;
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077102;
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      SEQUENCE
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                                                                                                                                                                                                                                                   JIANG H.,
                                                                                                                                                                                                                                                                                                                                                                   MANDUCA SEXTA (TOBACCO HAWKMOTH) (TOBACCO HORNWORM).
EUKARYOTA; METAZOA; ARTHROPODA; TRACHEATA; HEXAPODA; INSECTA
PTERYGOTA; LEPIDOPTERA; SPHINGIODEA; SPHINGIDAE; SPHINGINAE;
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STRAIN-CV. COLDMBIA;
LATREILLE P., ELLIOTT G., LE T.;
"The sequence of A. thallana T24M8.";
SUBMITTED (JUL-1998) TO EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
EUKARYOTA; VIRIDIPLANYAE; CHAROPHYTA/PEMBRYOPHYTA; ECHAROPHYTA; EDYARYOTA; VIRIDIPLANYAE; CHAROPHYTA/PEMBRYOPHYTA; MAGNOLIOPHYTA;
TRACHEOPHYTA; EUPHYLLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
EUDICOTYLEDONS; ROSIDAE; CAPPARALES; BRASSICACEAE; ARABIDOPSIS.
                                                                                                                                EMBL;
                                                                                                                                                                                                                                                                                                                SEQUENCE
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STRAIN-CV. COLUMBIA;
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AF077409; G3319366;
NCE 258 AA; 28721
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ED (JUL-1998) TO
                                                                                                                                                   nol oxidase activating proteinase from an insect, bacteria-inducible protein similar to Drosophila L. ACAD. SCI. U.S.A. 95:12220-12225(1998).
                                                                                                                                                                                                                                             98445352.
WANG Y., KANOST M.R.;
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L OXIDASE ACTIVATING I
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      383 AA;
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                                                                                                                         G3746547;
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EMBL/GENBANK/DDBJ DATA BANKS.
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1; Misma
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PROPHENOL OXIDASE
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                                                                                                                032439;
01-JAN-1998
01-JAN-1998
01-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE; 98132649.

SEGAL G., PURCELL M., SHUMAN H.A.;

SEGAL G., PURCELL M., SHUMAN H.A.;

"Host cell killing and bacterial conjugation require overlapping of genes within a 22-kb region of the Legionella pneumophila geno PROC. NATL. ACAD. SCI. U.S.A. 95:1669-1674(1998).

EMBL; AF026534; G2895283; -.

EMBL; Y14948; E1251898; -.

EMBL; Y15044; E1251995; -.

EMBL; Y15044; E1252195; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUN-1998
01-JUN-1998
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ANDREWS H.L., VOGEL J.P., ISBERG R.R.;

"Identification of linked Legionella pneumophila genes essential intracellular growth and evasion of the endocytic pathway.";

INFECT. IMMUN. 66:950-958(1998).
STREPTOMYCES ALBOGRISEOLUS.
BACTERIA; FIRMICUTES; ACTINOBACTERIA;
STREPTOMYCETACEAE; STREPTOMYCES.
                                                                                                                                                                                                                                                                                         411 EICGDP 416
|||:||
1 EICADP 6
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MEDLINE; 98119924.
VOGEL J.P., ANDREWS H.
"Conjugative transfer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LEGIONELLA PNEUMOPHILA.
BACTERIA; PROTEOBACTERIA;
                                                                      SAM-P20D
                                                                                           SERINE PROTEASE PRECURSOR.
                                                                                                                                                                                                      032439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PURCELL M., SHUMAN H.A.; SUBMITTED (FEB-1998) TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                pneumophila.";
SCIENCE 279:873-876(1998).
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les 5; Conser
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(TREMBLREL.)
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(TREMBLREL. 08, LAST ANN
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larity 83.3%;
Conservative
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the virulence
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Pred. No. 2.:
1; Mismatc
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                                                                                                                SEQUENCE UI
ANNOTATION
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No. 2.81e+01;
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ce system of Legionella
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                         STREPTOMYCETES;
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XX MEDLINE: , AINSCOUGH R., BADDERSON K., BAYNES C., BERKS M., BONFIELD BURTON J., COULSON A., CRAXTON M.

XX DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN

XX DEAR S., DU Z., DURBIN R., JOHNSTON L., JONES M., KERSHAW J.,

XX HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,

XX KIRSTEN J., LAISTER N., LATERILLE P., LIGHTNING J., LLOYD C.,

XX MCMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,

XX AND MARKER B., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A.

XX AND M., VAUGHAN K., WATERSTON J., THIERRY-MIEG J., THOMAS K.,

XX AND M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,

XX MILKINSON-SPROAT J., WOLLDWAN P.;

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ULT 11
Q54395 PRELIMINARY;
Q54395; Q53544;
Q1-00-1996 (TREMBLREL 01
Q1-FEB-1997 (TREMBLEL 02
Q1-NOV-1998 (TREMBLEL 08
Q1-NOV-1998 (TREMBLEL 08
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045748;
045748;
01-JUN-1998
01-JUN-1998
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EMBL; Z81115; E1247209; -.
SEQUENCE 314 AA; 36587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MCMURRAY A.;
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"A gene homologous to the Streptomyces chymotrypsin-like protease
(SAM-p20) gene is tandemly located.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN-S-3253;
MEDLINE; 97321869.
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SEQUENCE FROM N.A.
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283 AA;
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                          CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                          Score 40; DB 5;
Pred. No. 4.59e+01
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Pred. No. 4.59e+01
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POTENTIAL.
482039A6
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BDITIDAE; PELODERINAE; CAENORHABDITI
                                                                                                                                                  PRT;
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  SALO PRECURSOR (EC
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RESULT 12
ID P71835;
AC P71835;
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AC P71836;
AC P71836;
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  RESULT
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PTRB.
MYCOBACTERIUM LEPRAE.
BACTERIA; FIRMICUTES;
MYCOBACTERIUM.
[1]
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01-JUL-1997
01-NOV-1998
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SIGNAL
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TAGUCHI S., ENDO T., NAOI Y., MOMOSE H.;
"Molecular cloning and sequence analysis of a gene encoding extracellular serine protease from Streptomyces lividans 66.
BIOSCI. BIOTECHNOL. BIOCHEM. 59:1386-1388(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MCLEAN J., HARRIS D., BARRELL
SUBMITTED (SEP-1996) TO EMBL/
-!- SIMILARITY: TO PEPTIDASE
-OLIGOPEPTIDASE FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                              312 EICEDP :
||| ||
1 EICADP (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HYPOTHETICAL 60.9 MTCY369.26.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. STRAIN-66;
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BACTERIA; FIRMICUTES; ;
STREPTOMYCETACEAE; STR:
[1]
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PF00326; Prolyl_oligopep;
HETICAL PROTEIN.
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                                                            FIRMICUTES;
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354 AA;
                                                                                                                                                                  (TREMBLREL.
(TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        552 AA;
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(TREMBLREL.)
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157 POTENTI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60896 MW;
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                                                       ACTINOBACTERIA;
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05, LAST SEQUENCE UPDATE)
08, LAST ANNOTATION UPDATE)
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                                                                                                                                                                  CREATED)
LAST SEQUENCE ANNOTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 40; DB 2; I
Pred. No. 4.59e+01;
0; Mismatches 1
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Pred. No. 4.59e+01;
3; Mismatches 0
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FAMILY S9A; ALSO I
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ANNOTATION UPDATE)
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                                                         MYCOBACTERIA;
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RESULT 15

ID Q14745

AC Q14745;
AC Q14745;
DT 01-NOV-1996 (TREMBLREL. 01, CREJ
DT 01-NOV-1998 (TREMBLREL. 08, LAST)
DT 01-NOV-1998 (TREMBLREL. 08, LAST)
DE LD78 ALPHA BETA PRECUSSOR (FRAG)
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VI
OC CATARRHINI; HOMINIDAE; HOMO.
RN [1]
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Best Local (
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EMBL; 295151; E315055; -.
EMBL; 295152; ProlyLoligopep; 1
C PFAM; PF00326; ProlyLoligopep; 1
724 AA; 81361 MW; A8
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090733;
090733;
01-NOV-1998
01-NOV-1998
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BADCOCK K., CHURCHER (
SUBMITTED (MAY-1997)
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SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            genomic RNAs.";
ARCH. VIROL. 143:631-643(1998).
EMBL; D86634; D1029708; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VIRUSES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
MEDLINE; 98301984.
NAMBA S. KASHIWAZAKI S., LU X.,
"Complete nucleotide sequence of
                                                                                                                                                                                                                                                                          2001 DICANP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               POLYPROTEIN. WHEAT YELLOW
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O EMBL/GENBANK/DDBJ
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O EMBL/GENBANK/DDBJ DATA BANKS
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                                                                         (FRAGMENT)
                                                                                                                                                                                                                                                                                                            Score 40;
Pred. No. 2; Misman
                                                                                        CREATED)
LAST SEQUENCE UPDATE)
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59K PROTEIN.
32K PROTEIN.
32K PROTEIN.
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Pred. No. 4.59e+01
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                                         VERTEBRATA;
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No. 4.59e+01;
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01-JUL-1997 (TREMBLREL. 04
01-NOV-1998 (TREMBLREL. 06
BETA CHEMOKINE EXODUS-2.
HOMO SAPIENS (HUMAN)
EUKARYOTA; METAZOA; CHORDI
                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
SEQUENCE FROM N.A.;
STOTING J.A., ZLOTNIK A.;
O08688;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                000585;
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NON_TER
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                 HEDRICK J.A., ZLOTNIK A.; "Identification and characterization containing six conserved cysteines."; J. IMMUNOL. 159:1589-1593(1997).
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NON_TER
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                                                                                                                                                                                                                                                             NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA
NISHIMURA M., KARIZAKI M., NOMIYAMA H., YOSHIE O.;
SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS
EMBL; U88320; G2196920; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. MEDLINE; 97400322.
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KATSURAGI S., KIN Y., OHMOTO Y., NOMIYAMA H., IIO M., MIURA F
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TISSUE=BRAIN;
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                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
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[3]
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                                                                                                         73 ELCADP 78
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EICADP
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PS00472; SMALL_CYTOKINES_CC; 1.
00048; i18; 1.
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HOMINIDAE; HOMO.
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Pred. No. 7.43e+01;
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LD78 ALPHA BETA
              PRT;
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DATA BANKS.
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"A new subfamily of vertebrate calpains lacking domain: implications for calpain regulation and GENOMICS 45:175-184(1997).

EMBL; V10656; E300457; -.

MGD; MGI:1100859; CAPM5.

PFAM; PF00168; C2; 1.

PFAM; PF00648; Cys_protease_2; 1.

PFAM; PF01067; Calpain_III; 1.
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056043
056043;
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01-JUN-1998 (TR
01-AUG-1998 (TR
01-AUG-1998 (TR
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Q20397;
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01-NOV-1996
01-NOV-1998
F44D12.10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         UPADHYAKA N.M., LI Z., RAMM K., YANG M., YELLATLE UPADHYAKA N.M., LI Z., RAMM K., YANG M., YELLATLE UPADHYAKA N.M., WATERHOUSE P.M.;
GERLACH W.L., WATERHOUSE P.M.;
SUBMITTED (AGG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF020335; G2921098; -.
EMBL; AF020335; G2921098; -.
SEQUENCE 1192 AA; 133080 MW; 6BD970E3 CRC32;
                                                                                                                                                                                                     CAENORHABDITIS ELEGANS EUKARYOTA; METAZOA; NEI
    SUBMITTED
                                                  COLES
                                                                                                                                                           EUKARYOTA; METAZOA; NEMATODA; RHABDITINA; RHABDITOIDEA; RHAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MUS MUSCULUS
EUKARYOTA; ME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CALPAIN 5 (CALPAIN-LIKE CAPN5 OR NCL-3.
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01-JUL-1997 (TREMBLREL.
01-NOV-1998 (TREMBLREL.
                                                                                    SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /IRUSES;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN-BALB/C
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    (DEC-1995)
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METAZOA; CHORDATA; VERTEBRATA;
MUT. MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                       (TREMBLREL.)
(TREMBLREL.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TREMBLREL.) (TREMBLREL.
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EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REOVIRIDAE;
                                                                                                                                                           DA; SECERNENTEA; RHABDITIA; RHABDITIDA; RHABDITIDA; PELODERINAE; CAENORHABDITI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LAST SEQUENCE UPDATE)
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pred. No. 7.43e+01;
1; Mismatches 1
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Pred. No. 7.43e+01
2; Mismatches
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is lacking a
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                                                                                                                                                                                                                                                                                                                                UPDATE)
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RESULT
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029340 PRELL.
029340; (TREMBLREL. 05,
01-JAN-1998 (TREMBLREL. 05,
01-JAN-1998 (TREMBLREL. 07,
01-AUG-1998 (
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
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Best Local
                                                             ARCHAEOGLOBUS.
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Q61854;
Q1-804-1996 (TREMBLREL 01,
01-NOV-1996 (TREMBLREL 01,
01-NOV-1998 (TREMBLREL 08,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A., CRAXTON M., DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J., KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C., MCMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C., RIFKEN L., ROOPEA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH SONNHAMMER E., STADEN R., SULSTON J., THIERRY-MIEG J., THOMAS K., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L., "2.2 Mb of contiguous nucleotide sequence from chromosome III of C. enlegans.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           [2]
SEQUENCE
MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GRAW J., LOESTER J., NEUHAEUSER-KLAUS A., PRETSCH W., s
"Molecular analysis of two new Steel mutations in mice
transversion or an insertion.";
MAMM. GENOME 7:843-846(1996).
EMBL; X95379; E220404; -.
SEQUENCE 123 AA; 13892 MW; F3244130 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MGF.
SEQUENCE FROM N.A. STRAIN-VC-16 / DSM
                                                                                                                       ARCHAEOGLOBUS FULGIDUS.
ARCHAEA; EURYARCHAEOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=(102/ELXC3H /EL)F1; TISSUE-BRAIN; MEDLINE; 97032534.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
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EMBL; Z68298; E214752;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27
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4304 / ATCC 49558;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               86.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11944 MW;
                                                                                                                                                                                                                                  PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MURINAE;
                                                                                                                                                                                                                                                             05,
                                                                                                                              ARCHAEOGLOBALES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 38;
Pred. No.
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LAST SEQUENCE UPDATE)
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                                                                                                                                                                                                                                                      CREATED)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           42F5A6B2 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.19e+02;
                                                                                                                                                                                                                                                                                                                                                                                                   138
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A
                                                                                                                              ARCHAEOGLOBACEAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 123;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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Best Local S
Matches
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Q05391
Q05391;
Q05391;
Q1-NOV-1996 (TREMBLREL: 01, CO1-NOV-1996 (TREMBLREL: 01, LO1-NOV-1998 (TREMBLREL: 08, I
                                                                                                                                                                                               ULY 23
Q64384; PRELIMINARY;
Q64384; GTREMBLREL 0:
Q1-NOV-1996 (TREMBLREL 0:
Q1-NOV-1996 (TREMBLREL 0:
Q1-NOV-1998 (TREMBLREL O:
Q1-NOV-1998 (TREMBLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE: 98049343.

KLENK H.-P., CLAYTON R.A., TOMB J.-F., WHITE O., NELSON K.E., KEICHUM K.A., DODSON R.J., GWINN M., HICKEY E.K., PETERSON J.D., RICHARDSON D.L., KEBLAVAGE A.R., GRAHAM D.E., KYRPIDES N.C., FLEISCHMANN R.D., QUACKENBUSH J., LEE N.H., SUTTON G.G., GILL S., KIKNESS E.F., DOUGHERTY B.A., MCKENNEY K., ADAMS M.D., LOFTUS B., PETERSON S., REICH C.I., MCNEIL L.K., BADGER J.H., GLODEK A., ZHOU OVERBEEK R., GOCAYNE J.D., WEIDMAN J.F., MCDONALD L., UTTERBACK T., COTTON M.D., SPRIGGS T., ARTIACH P., KAINE B.P., SYKES S.M., SADOW P.W., D'ANDREA K.P., BOWMAN C., FUJII C., GARLAND S.A., MASON T.M., OLSEN G.J., FRASER C.M., SMITH H.O., WOESE C.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; X70
INIT_MET
NON_TER
                                                               (C-KIT LIGAND C-TERMINALLY MGF OR SL OR KL. MUS MUSCULUS (MOUSE). EUKARYOTA; METAZOA; CHORDAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  in the thermophilic cyanobacterium Synechococcus BIOCHEM. J. 294:239-251(1993). EMBL; X70433; G49237; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WEDLINE; YOSTANDEN H.S., LUTTER R., WALKER J.E.;
VAN WALRAVEN H.S., LUTTER R., WALKER J.E.;
"Organization and sequences of genes for the subunits
"Organization and sequences of genes for the subunits
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          URF 7 PROTEIN (FRAGMENT)
SYNECHOCOCCUS SP. (STRAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TIGR; AFUY22,
HYPOTHETICAL PROTEIN.
138 AA; 15252 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "The complete genome sequence sulphate-reducing archaeon Arc NATURE 390:364-370(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SYNECHOCOCCUS SP. (STRAIN PCC 6716).
BACTERIA; CYANOBACTERIA; CHROOCOCCALES; SYNECHOCOCCUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; AE001040; G2649686; -.
                                   SCIUROGNATHI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-6716;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VENTER J.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   150 EFCADP 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          35 ICADP 39
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Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 EICADP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 ICADP 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      200 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
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                                   MURIDAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         200
22219 MW;
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                                                                      CHORDATA;
                                   MURINAE;
                                                                                                                                                                                                                                  801,
01,
                                                                                                                                                                      TRUNCATED
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Archaeoglobus fulgidus.";
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Pred. No. 1.19e+02
1; Mismatches
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Pred. No. 1.19e+02;
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                                                               VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AA0F314C CRC32;
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                                   MUS
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                                                                                                                                                                      SECRETED FORM KL-SLD)
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                                                                   MAMMALIA;
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                                                                   EUTHERIA; RODENTIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          UTTERBACK T.,
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                                                                                                                                                                      (FRAGMENT).
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RESULT 25
ID P97332;
AC P97332;
DT 01-MAY-1997 (TREMBLREL. 03, CREATED)
DT 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UP)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION |
DE MAST CELL GROWTH FACTOR.
GN MGF S1-3NEU.
OS MUS MUSCULUS (MOUSE).
OC EURARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAI
COC SCIUROGNATHI; MURIDAE; MURINAE; MUS.
RN [1]
RP SEQUENCE FROM N.A.
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064222;
01-NOV-1996
01-NOV-1996
01-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE; 92330001.
HUANG E.J., NOCKA K.H., BUCK J., BESMER
HUANG E.J., NOCKA K.H., BUCK J., BESMER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FLANAGAN J.G., CHAN D.C., LEDER P.;
FLANAGAN J.G., LEDER P.;
FLANAGAN J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Differential expression and proces of the kit-ligand: KL-1 and KL-2."; MOL. BIOL. CELL 3:349-362(1992). EMBL: S40534; E59502; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       [2]
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MEDLINE; 92330001.

HUANG E.J., NOCKA K.H., BUCK J., BESMER P.;

"Differential expression and processing of

of the kit-ligand: KL-1 and KL-2.";

MOL. BIOL. CELL 3:349-362(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SL/STEEL
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NON_TER 208 208
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245 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (TREMBLREL. 01, CREATED)
(TREMBLREL. 01, LAST SEQUENCE UPDATE)
(TREMBLREL. 08, LAST ANNOTATION UPDATE)
D TRUNCATED TRANSMEMBRANE FORM KL-2 (FRAGMENT).
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llarity 66.7%;
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27541 MW;
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Pred. No. 1.
2; Mismatc
                                                                                                                                                                                                                      CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pred. No. 1.19e+02;
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1.19e+02;
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Best Local Similarity
Matches 4; Consei
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PRELIMINARY; PR
P71057; O08176;
P71057; O08176;
O1-FEB-1997 (TREMBLREL. 02, CRE#
O1-FEB-1997 (TREMBLREL. 02, LAS'
O1-NOV-1998 (TREMBLREL. 08, LAS'
O1-NOV-1998 (TREMBLREL. 08, LAS'
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Best Local :
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Q62524; PRELIMINARY;
Q62524; (TREMBLREL. (
01-NOV-1996 (TREMBLREL. (
01-NOV-1998 (TREMBLREL. (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GRAW J., LOESTER J., NEUHAEUSER-KLAUS A., PRETS
"Molecular analysis of two new Steel mutations
transversion or an insertion.";
MAMM. GENOME 7:843-846(1996).
EMBL; X99322; E254164; -.
VARIANT 193 193 P.-L.
VARIANT 207 207 SEQUENCE 273 AA; 30645 MW; 4A2BE512 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN-102/E1XC3H/E1F1;
GRAW J., NEUHAEUSER-KLUUS, PRETSCH;
MUTAT. RES. GENOMICS 382:75-78(1997).
EMBL; Y10287; E1172508; -.
MGD; MGI:96974; MGF.
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                             SEQUENCE FROM N.A.
STRAIN-168;
                                                                                                                                                              SEQUENCE FROM N.A.
DENIZOT F.C.;
                                                                                                                                                                                                                                                                                     STRAIN-168TRP;
FABRET C., QUE
                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BACILLUS SUBTILIS.
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GRAW J., LOESTER J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MAST CELL GROWTH FACTOR
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MEDLINE; 98044033
                                                                                                                             SUBMITTED
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                                                                                                                                                                                                                                              TRP;
QUENTIN Y., CI
                                                                                                                                                                                                                                                    (AUG-1996)
                                                                                                                          (APR-1997)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 BACILLUS/CLOSTRIDIUM GROUP; BACILLACEAE;
                                                                                                                                                                                                                                                    CHAPAL N., GUISEPPI A.,
D EMBL/GENBANK/DDBJ DATA
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02, LAST SEQUENCE UPDATE)
08, LAST ANNOTATION UPDATE)
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Pred. No.
2; Misma
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Pred. No. 1.19e+02;
2; Mismatches 0;
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. 1.19e+02;
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BANKS.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    shows
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RA GLASER P., GOFFEAU A., GOLIGHTLY E.J., GRANDI G., GUISBPPI G.,
RA GUY B.J., HAGA K., HAIECH J., HARWOOD C.R., HENAUT A., HILBERT H.,
RA HOLSAPPEL S., HOSONO S., HULLO M.F., ITAYA M., JONES L., JORIS B.,
RA KORTTER P., KONINGSTEIN G., KROH S., KUMANO M., KURITA K., LAPIDUS A.,
RA KOETTER P., KONINGSTEIN G., KROH S., KUMANO M., KURITA K., LAPIDUS A.,
RA MASUDA S., MAUEL C., MEDIGUE C., MEDINA N., MELLADO R.P., MIZUNO M.,
RA MASUDA S., MAUEL C., MEDIGUE C., MEDINA N., MELLADO R.P., MIZUNO M.,
RA MOESTL D., NAKAI S., NOBACK M., NOONE D., O'REILLY M., OGAWA K.,
RA MOESTL D., NAKAI S., NOBACK M., NOONE D., O'REILLY M., OGAWA K.,
RA MOESTL D., NAKAI S., NOBACK M., NOONE D., O'REILLY M., ORAWA K.,
RA POWOLLIK S., PRESCOTT A.M., PRESECAN E., PUJIC P., PURNELLE D.,
RA PORMOLLIK S., PRESCOTT A.M., PRESECAN E., PUJIC P., PURNELLE D.,
RA ROCHE B., ROSE M., RAYNOLDS S., RIEGER M., RIVOLTA C., ROCHA E.,
RA ROCHE B., ROSE M., SADAIE Y., SATO T., SCANLAN E., SCHLEICH S.,
RA SCHROETER R., SCOFFONE F., SEKIGUCHI J., SEKOWSKA A., SEROR S.J.,
RA SERROR P., SHIN B.S., SOLDO B., SOROKIN A., TACKONI E., TAKAGI T.,
RA TAKAHASHI H., TAKEMARU K., TAKEUCHI M., TAMAKOSHI A., TANAKA T.,
RA TERPSTRA P., TOGNONI A., TOSATO V., UCHIYAMA S., VANDENBOL M.,
RA VANNIER F., VASSAROTTI A., VIARI A., WAMBUTT R., WEDLER E., WEDLER H.,
RA VASIMOTO K. VATA K. VORHTOM K. YORHTKAWA H.P. J., TAMANG K.,
RA VASIMOTO K. VATA K. VORHTOM K. YORHTKAWA H.P. J., TAMANG K.,
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Best Local S
Matches
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01-NOV-1996
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Q21805;
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AZEVEDO V., BERTERO M.G., BESSIERES P., BOLOTIN A., BORCHERT S.,
BORRISS R., BOUNSIER L., BRANS A., BRAUN M., BRIGNELL S.C., BRON S.,
BROUGLLET S., BRUSCHI C.V., CALDWELL B., CAPUANO V., CARTER N.M.,
CHOI S.K., CODANI J.J., CONNERTON I.F., CUMMINGS N.J., DANIEL R.A.,
DENIZOT F., DEVINE K.M., DUSTERHOFT A., EHRLICH S.D., EMMERSON P.T.,
ENTIAN K.D., ERRINGTON J., FABRET C., FERRARI E., FOULGER D., FRITZ C.,
WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFI BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A., CRAXTON DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GR HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW
                                                                                                                                                  SUBMITTED
                                                                                                                                                                                                                           EUKARYOTA; METAZOA; NEMATODA; RHABDITINA; RHABDITOIDEA; RHAE
                                                                                                                                                                                                                                                                   CAENORHABDITIS ELEGANS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HYPOTHETICAL PROTEIN. SEQUENCE 344 AA; 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; 271928; E238665; -.

EMBL; 294043; E313059; -.

EMBL; 299121; E1186118; -.

PFAM; PF00355; Glycos_transf_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KUNST F., OGASAWARA N., YOSHIKAWA H., DANCHIN A.; SUBMITTED (NOV-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "The complete genome sequence of the gram-positive bacterium Bacillus subtilis.";
                                                                                                          SEQUENCE FROM
                                                                                                                                                                   HARRIS
                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN=168;
KUNST F., O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                   MEDLINE;
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YOSHIKAWA H., DANCHIN A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              288 ICADP 292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   y Match 86.4%;
Local Similarity 100.0%;
hes 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 ICADP 6
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                                                                                 94150718.
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                                                                                                                                              (JUL-1996)
                                                                                                                                                                                                                                                                                                         (TREMBLREL. (TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     39809 MW;
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                                                                                                                                              EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                         01,
                                                                                                                                                                                                                         ODA; SECERNENTEA; RHABDITIA; RHABDITIDA; RHABDITIDA; PELODERINAE; CAENORHABDITIS
                                                                                                                                                                                                                                                                                                         CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 38; DB 2; L
Pred. No. 1.19e+02;
                                                                                                                                                                                                                                                                                                                                                                                        PRT;
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                                                                                                                                                                                                                                                                                                                                                                                          369
                                                                                                                                                                                                                                                                                                                                                                                        AA
                                                                                                                                                                                                                                                                                                         UPDATE)
                                     C., BERKS M., BONFIELD J.,
COULSON A., CRAXTON M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 344;
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                       GREEN P.,
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SORRAC OCCUPATION
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Best Local S
Matches
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Best Local (
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1998
01-NOV-1998
                                                                                                                                                                      042135 PRELIMINARY; PRT
042135; CREAT
01-JAN-1998 (TREMBLREL. 05, CREAT
01-JAN-1998 (TREMBLREL. 08, LAST
01-NOV-1998 (TREMBLREL. 08, LAST
NA+/MYO-INOSITIOL CO-TRANSPORTER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    080378;
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                                    SUBMITTED (OCT-1997) TO ENEMBL; AB008225; D1023825; PFAM; PF00474; SSF; 1.
SEQUENCE 673 AA; 74135
                                                                                                                                              XENOPUS LAEVIS (AFRICAN CLAWED FROG).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; AMPHIBIA; BATRACHIA; ANURA;
                                                                                                                                                                                                                                                                                                                                                                                                  "A novel protein from carrot embryo.";
SUBMITTED (MAR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS
EMBL; AB012703; D103788; -.
NON_TER 1 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DAUCUS CAROTA (CARROT).

EUKARYOTA; VIRIDIPLANTAE; CHAROPHYTA/EMBRYOPHYTA GROUP; EMB
TRACHEOPHYTA; EUPHYLLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
EUDICOTYLEDONS; ASTERIDAE; ARALIALES; APIACEAE; DAUCUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NATURE 368:32-38(1994).
EMBL; Z75955; E253186; PFAM; PF00105; Zf-C4; 1
SEQUENCE 369 AA; 416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "2.2 Mb of elegans.";
                                                                                              TISSUE-SMALL INTESTINE;
                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181 (FRAGMENT).
                                                                                    NAGATA K.;
                                                                                                                                     MESOBATRACHIA; PIPOIDEA;
                                                                                                                                                                                                                                                                                                             398 ICADP 402
                                                                                                                                                                                                                                                                                                                                                Match 86.4%;
Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         44 EICGNP 49
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ses 4; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 EICADP
                                                                                                                                                                                                                                                                                     2 ICADP 6
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                                                                                                                                                                                                                                                                                                                                                                                      433 AA;
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(TREMBLREL.)
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 86.4%;
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                                    1.
74135 MW;
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                                                                        EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                     PIPIDAE; XENOPODINAE;
                                                                                                                                                                                                                                                                                                                                                                                        MW;
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                                                                                                                                                                                                                                                                                                                                                 Score 38;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred.
2; 1
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Pred. No.
 Score 38; DB 13;
Pred. No. 1.19e+02;
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LAST SEQUENCE UPDATE)
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LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                     0; Mismatches
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                                                                                                                                                                                                                                      673
                                                                                                                                                                                                                                                                                                                                                 1.19e+02;
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            Length 673;
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                                                                                                                                     XENOPUS
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Search completed: Thu Apr Job time : 33 secs.	Matches 347
comp e:	ches 4; Con 347 EICGNP 352    ::  1 EICADP 6
lete 33 sı	4; ICGNP   ::  ICADP
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Problemostre; Page 5; 27pp; English.

Cr. The present sequence represents an analogue, MCP-1 (10-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the Cr. The chemoattractant protein-1 (MCP-1). The analogue, which lacks the Cr. The chemoattractant protein-1 (MCP-1), acts as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 Cr. The effects of MCP-1 which is an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into Cr. Inflammation sites. MCP-1 has been implicated in allergic and chronic cr. Inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding Cr. Treceptors than prior art mutant versions of MCP-1 e.g. preferably providing 508 inhibition of binding at a 25:1 ratio or less, compared Sequence 66 AA;
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Best Local Similarity 100.0%;
Matches 6; Conservative
Homo sapiens.
CA2152141-A.
CC-2052-1996.
19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
(LEWI/) LEWIS I.
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W13598;
07-NOV-1997 (first entry)
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W13599;
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19-JUN-1995; 152141.
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Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
chronic inflammatory disease; arthritis; arteriosclerosis;
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Mismatches 0;
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Novel beta-chemokine
Interleukin-8/NAP-1
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kakwva 53 KOKWVQ

Query Match Best Local

h 100.0%; Similarity 100.0%; 6; Conservative

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PS Disclosure; Page 5; 27pp; English.

CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte Cc themoattractant protein-1 (MCP-1). The analogue, which lacks the CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1 CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 CC receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration CC inflammatton sites. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung CC diseases. The analogue competes more effectively with MCP-1 for binding CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared
Proceeding 5, 27pp; English.

CC laim 7; Page 5; 27pp; English.

CC The present sequence represents an analogue, MCP-1 (9-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the CC N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1 cas it lacks MCP-1 biological activity and inhibits binding to a MCP-1 CC as it lacks MCP-1 which is an inflammatory mediator causing migration confidence of MCP-1 which is an inflammatory mediator causing migration confidence of monocytes and other cells e.g. basophils and lymphocytes into CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared SQ Sequence 68 AA;
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Best Local S
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Homo sapiens.
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W13597 standard; peptide; 68
W13597;
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Truncated monocyte chemoattractant protein-1; inhibitor; 
receptor binding; anti inflammatory; basophil; lymphocyte; allergy; 
chronic inflammatory disease; arthritis; arteriosclerosis;
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Gong J, Lewis I;
WPI; 97-165844/16.
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and inhibits receptor binding, useful
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are protein-1 inhibiting the monocyte chemo-attractant activity of prepable of inhibiting the monocyte chemo-attractant activity of prepared of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis

CC Claim 4; Page 11; 22pp; English.

CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations CC are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Pha; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino cc and C2+B. The present sequence is a specifically claimed human MCP-1 and Cerivative based on the parent protein disclosed in Rollins, Molecular CC derivative based on the parent protein disclosed in Rollins, Molecular CC and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.

CC The peptides can be used to prevent restenosis, e.g. in patients considered in Company artery angioplasty.
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18-MAY-1995.

07-NOV-1994; U12874.

12-NOV-1993; US-152301.

( DAND ) DANA FARBER CANCER INST INC.

--11ins B, Zhang YJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                        (LEWI/) LEWIS I.
Gong J, Lewis I;
WPI; 97-165844/16.
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W13596;
07-NOV-1997 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
CA2152141-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Monocyte chemoattractant protein analogue MCP-1 (8-76).
Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
chronic inflammatory disease; arthritis; arteriosclerosis;
The present sequence represents an analogue, MCP-1 (8-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1
                                                                                             anti-inflammatory agent
Claim 5; Page 5; 27pp; English.
                                                                                                                                                    N-terminally truncated monocyte chemo:attractant protein-1 lacks MCP-1 activity and inhibits receptor binding, useful
                                                                                                                                                                                                                                                                                                               20-DEC-1996.
19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          lung disease.
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Local Similarity 100.0%;
les 6; Conservative
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been deleted between these residues"
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. No. 1.15e+02;
Mismatches 0; Indels
                                                                                                                                                          as (MCP-1)
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Best Local S
Matches
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Best Local Similarity 100.0%;
Matches 6; Conservative
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107-NOV-1994; U12874.
112-NOV-1993; US-152301.
(DAND ) DANA FARBER CANCER IN ROllins B, Zhang YJ;
WPI; 95-215051/28.
R87680 standard; protein; 76 AA. R87680; 05-MAR-1996 (first entry) Monocyte chemotactic activating factor for use as wound remedy. monocyte chemotactic activating factor; MCAF; wound remedy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28 Tyr by Leu and/or 30 Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.

The peptides can be used to prevent restenosis, e.g. in patients
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammator sites. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared with 75:1 for prior art mutant 7ND.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - a capable of inhibiting the monocyte chemo-attractant activity endogenous MCP-1 and can be used to treat restenosis Claim 5; Page 11; 22pp; English.
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R87676 standard; protein;
R87676;
21-FEB-1996 (first entry)
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                                                                                                                                                                                                                                                                                                                   56 kqkwvq 61
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                                                                                                                                                                                                                                                                 1 KQKWVQ
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Local Similarity 100.0%;
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69 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              coronary artery angioplasty.
76 AA;
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1.15e+02;
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. 1.15e+02;
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13-SEP-1994, J01512.
13-SEP-1993, JP-227385.
(TORA) TORAY IND INC.
Matsushima K, Naruto M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic.
W09219737-A.
12-NOV-1992.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          wound treatment using monocyte chemotactic factor - has potent therapeutic effect on skin wounds and ulcers Disclosure; Page 12; 22pp; Japanese.

The invention relates to a new remedy for curing wounds which, instead of comprising a growth factor, comprises a monocyte chemotactic activating factor (MCAF) or its variants or derivatives. The factor has potent effect on skin wounds and ulcers. The present sequence is human MCAF, the activity of which is exemplified as the new remedy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; Page 48 + Page 36; 56pp; English.
An expression plasmid, pHM483, for producing MCF(76) consisting of 76 amino acids was constructed. The prod. can be used for e treating bacterial infectious diseases.

Sequence 76 AA;
                                                                                                                                                                                   Sequence of bovine P6 protein. Monocyte chemoattractant; bov
                                                                                                                                                                                                                                                                       R26580;
28-JAN-1993
                                                                                                                                                                                                                                                                                                                                           R26580 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; Q30745-46.
Prodm. of polypeptide(s) having monocyte chemotactic activity using expression plasmids with E. coli elements and specific E.coli strains
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (DAIN ) DAINIPPON PHARM CO LTD.
Fukui T, Matsuo N, Yamada M, Yamagishi J;
WDI; 92-398864/48.
                                                                                                               Bos taurus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27-APR-1992; J00550.
09-MAY-1991; JP-135950
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                                                                               DE4125251-C
                                                                                                                                                   inflammation therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RBS; promoter; tryptophan; repressor.
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WO9507710-A1.
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Pred. No. 1.15e+02;
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Pred. No. 1.15e+02;
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20-JUL-1989;
31-JAN-1989;
030423.
31-JAN-1989; US-304234.
(USSH) US Dept. of Health and Yoshimura T; Robinson E; App WPI; 89-263501/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      neoplasms.

Disclosure; page 3; 46pp; English.

Disclosure; page 3; 46pp; English.

Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from leukocytes and has mol. wt. 8400. Used to treat infections and neoplasms Sequence 76 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          treating inflammation, tumours, thrombosis, and immune reactions, also for diagnosis

Claim 1, Page 3; 6pp; German.

Poly(A+)RNA from bull seminal vesicles was used to prepare a cDNA i the expression vector lambda gtll. 1.5 x 10(5) cDNA clones were screened with a polyclonal anti-P6 antiserum of monospecific immunoglobulin G and six positives were identified. The insert of suitable cDNA clone, pH42, was cloned into pUC18 and sequenced. pH42 encodes the 11.114 Da precursor of P6. It is called Monocyte Chemoattractant (bMCP-1), which is a homologue of human (h)MCP-1. There is 72% overall AA sequence homology to hMCP-1 with the signal peptide showing 100% and the central region showing 89% homology.
                                                                                                                          LT 11
Ref 11
Ref 17
Ref 17
Ref 17
Ref 17
Ref 1996 (first entry)
(3-Ala) MCP-1.
                                                                         monocyte chemoattractant protein; MCP-1; angioplasty.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-JAN-1990 (first entry)
Peptide from human glioma cell line U-105MG.
Glioma; leucocyte; chemotaxis; neoplasms.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JT 10
pp:10
pp:20;
pp:029;
pp:0292;
17-JAN-1990 (first entry)
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(SCHA-) SCHAPER & BRUE
Gramm W, Lins E;
WPI; 92-293438/36.
                            Key
                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New peptide with specific chemotactic activity for monocytes - iso from glioma or leucocyte cells, useful for treating infections and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               modified_site
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modified_site
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     Location/Qualifiers
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Pred. No. 1.15e+02;
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Pred. No. 1.15e+02;
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                                                 Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis?

Claim 3; Page 11; 22pp; English.

Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 34-Tyr by aspartate: (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.

The peptides can be used to prevent restenosis, e.g. in patients
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis?

Claim 6; Page 11; 22pp; English.

Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations substitution of 28-Tyr by Saspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of anino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.

The peptides can be used to prevent restenosis, e.g. in patients
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disulfide_bond 12..52
w09513295-A1.
18-MAY-1995.
07-NOV-1994; U12874.
12-NOV-1994; US-152301.
(DAND ) DANA FARBER CANCER INST INC.
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07-NOV-1994; U12874.

12-NOV-1993; US-152301.

(DAND) DANA FARBER CANCER II

ROllins B, Zhang YJ;

WPI; 95-215051/28
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21-FEB-1996
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WPI; 95-215051/28.
                        and Cellular Biology, Vol. 9
The peptides can be used to
undergoing coronary artery a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         T 12
R87675 standard;
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76 AA;
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11..36
12..52
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Tyr in the native sequence is replaced by Asp"
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Pred. No. 1.15e+02;
0; Mismatches 0;
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Best Local
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22-OCT-1992; 965678.
22-OCT-1992; US-965678.
27-MAY-1994; US-250958.
(UNMI) UNIV MICHIGAN.
Kunkel SL, Lyle LR, St.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) - useful for therapy or diagnosis of restenosis, etc. Disclosure; Column 13-14; 16pp; English.

This is the amino acid sequence of the human monocyte chemoattractant protein (MCP)-1, a member of the C-C chemokthne family. MCP-1 is a potent stimulator of monocyte chemotaxis and is produced by injured vascular smooth cells thus attracting monocytes and macrophages which infiltrate the injured area and release growth factor. This causes proliferation of the vascular smooth cells resulting in restenosis. The gene sequence can be used to generate antisense sequences e.g. T48093-7, which can be used to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes of macrophages, or smooth muscle cells, esp. in order to prevent vascular
                                                                                                                                                                   Mature human monocyte chemoattractant protein-1 (MCP-1). MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8; IL-8; neutrophil activating peptide; labelling; inmaging; targetin radionuclide; infection; inflammation; neoplasm; atheromatous les
                                                                                                                                                                                                                                                                                              W11131 standard; protein; W11131;
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WPI; 96-505405/50.
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Human; monocyte chemoattractant protein; antisense; inhibition; mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
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W09374;
21-MAR-1997 (first entry)
  US5605671-A.
25-FEB-1997.
                                                                          misc_difference
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Local Similarity 100.0%;
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Pred. No. 1.15e+02;
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1.15e+02;
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                                                                                             Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and peptide(s) - is used for inhibiting, treating or imaging areas of reptide(s) - is used for inhibiting, treating or imaging areas of rescular restenosis or potential restenosis

Provide (s) - is used for inhibiting, treating or imaging areas of protein-1 (RCP-1) respectively. These monocyte chemotactic protein-1 (RCP-1) respectively. These coligonucleotides may be labelled with a radionuclide and use therapeutically for the treatment of vascular restenosis.

Radiolabelled antisense MCP-1 compounds may be constructed using high cenergy alpha or beta emitting isotopes rather than the gamma emitters cutomarily used for diagnostic purposes. Antisense MCP-1 compounds inactivate MCP-1 or inhibit production of MCP-1 so that monocytes are not attracted to the area of vascular injury and C proliferation of vascular cells is inhibited.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Radio:labelling neutrophil-activating peptide(s) - for imaging related delivery of radioactive agent. Example 10; Column 19-20; 15pp; English.

Example 10; Column 19-20; 15pp; English.

Will31 represents mature human monocyte chemoattractant protein-1 (MCP-1). MCP-1 was radionuclide labelled and used in a method for imaging a target site in vivo in an animal. Labelled MCP-1 was allowed to accumulate at a target site (having MCP-1 receptors) in the animal and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys chemokine carrying either iodine-123 or iodine-131 can be used in the method. Especially preferred is neutrophil activating peptide-2 (NAP-2) which recognises interleukin-8 receptors and is labelled with technetium-99m, indium-111, copper-62, rhenium-186 or rhenium-188.

The method can be used for imaging a site of infection, inflammation, neeplasm, atheromatous lesion or restenosis.
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Matches
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                                                                 Query Match
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28-APR-1994.
20-OCT-1993; U10074.
22-OCT-1992; US-965678.
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WPI; 97-153541/14.
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(UNMI ) UNIV MICHIGAN.
Kunkel SL, Lyle LR, Strieter RM;
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05-OCT-1992; US-956863.
05-OCT-1992; US-956862.
29-APR-1994; US-235659.
                                                                                                                                                                                                                                                                                                                                                                  Lyle LR;
WPI; 94-151314/18.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sense MCP-1.
                                                                                                                                                                                                                                                                                                                                                                                                  (MLCW ) MALLINCKRODT MEDICAL INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mammalian.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            radionuclide;
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56 kgkwvg
                                                  / Match 100.0%;
Local Similarity 100.0%;
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                                  6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RNA; DNA; monocyte chemotactic de; vascular restenosis; alpha; monocytes; vascular injury.
                                  Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Unspecified amino acid"
                                                Score
Pred.
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Pred. No. 1.15e+02;
0; Mismatches 0
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                                Mismatches
                                                53; DB 10;
No. 1.15e+02;
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beta; emitting isotope;
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This sequence represents the mature form of monocyte chemotactic protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of chemoattractant cytokines or chemokines. It is a potent stimulator of monocyte chemotaxis and has an extemely high degree of specificity for this cell type. MCP-1 is produced by injured vascular smooth muscle cells and attracts the monocytes and macrophages which infiltrate the area, releasing growth factors and resulting in proliferation of vascular smooth muscle and restenosis. Nucleic acid molecules which are antisense to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may be useful for inhibiting vascular restenosis, partic, following balloon angioplasty or a related process. The molecule may be radiolabelled to increase its therapeutic effect or for imaging areas of potential
                                                                                                                                                                                                                                                                                                                                                                                                                                  Chemoattractant protein MCP-1.
MCP-1; chemoattractant; heparanase; heparin; heparan sulfate; arthritis; restenosis; cancer; wound healing.
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R86859
Screening for cpds. with anti-heparanase activity - by inhibition of heparin or heparan sulphate degradation, potentially useful for treating arthritis, restenosis, Claim 13; Page 49; 60pp; English.

Purified heparanases, prepared under reducing condition
                                                                                                                                                                     (UPJO ) UPJOHN CO. Hoogwerf AJ, Ledbe WPI; 95-082239/11.
                                                                                                                                                                                                                                                               26-JUL-1994; U08207.
29-JUL-1993; US-099866.
13-OCT-1993; US-136117.
                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens. W09504158-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R70800 standard; Protein; R70800;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lyle LR, Thomas-M: WPI; 95-263703/34.
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14-JAN-1994; US-182917.
(MLCW ) MALLINCKRODT MEDICAL
Lyle LR, Thomas Miller B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "C-C" family; chemoattractant cytokine; chemokine; monocyte; chemotaxis; vascular smooth muscle cell;
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WO9519167-A1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mature MCP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R86859;
                                                                                                                                                                                                                                                                                                                                                       09-FEB-1995.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       restenosis
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                                                                                                                                                      N-PSDB; Q85370.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-AUG-1995 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               imaging
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||||||
1 KQKWVQ 6
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Local Similarity 100.0%;
les 6; Conservative
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Pred. No. 1.15e+02;
0; Mismatches 0
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   under reducing conditions and
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Best Local S
Matches
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06-APR-1995.
28-SEP-1994;
28-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                Disclosure; Page 4; 6pp; German.

Poly(A+)RNA from bull seminal vesicles was used to prepare a cDNA in the expression vector lambda gtll. 1.5 x 10(5) cDNA clones were screened with a polyclonal anti-P6 antiserum of monospecific immunoglobulin G and six positives were identified. The insert of a suitable cDNA clone, pH42, was cloned into pUC18 and sequenced.

BH42 encodes the 11,114 Da precursor of P6. It is called Monocyte Chemoattractant (bMCP-1), which is a homologue of human (h)MCP-1.

There is 728 overall AA sequence homology to hMCP-1 with the signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          activated with transglutaminase, are given in R70786-804. Most are prepared by reverse transcription of mRNA from activated human leukocytes, then cloning of the cDNA into pVL1392 baculovirus vector, and expression in Sf9 cells in the presence of reduced glutathione and dithiothreitol.

Sequence 99 AA;
                                                                                           Human monocyte chemoattractant factor hMCP-1.
Human monocyte chemoattractant factor; hMCP-1; chemokine; vaccine; meningitis related homologous antigenic sequence; MRHAS; RV-1;
                                          Homo sapiens.
WO9509232-A.
                                                                                                                                          R73914;
05-DEC-1995
                                                                                                                                                                   R73914 standard; protein; 99
                                                                                                                                                                                                                                                                                                                                         peptide showing 100% and the central region showing 89% homology sequence 99 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Drug containing a bovine protein homologous to human MCP-1 - for treating inflammation, tumours, thrombosis, and immune reactions also for diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (SCHA-) SCHAPER & BRUEMMER GMBH & Gramm W, Lins E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31-JUL-1991;
31-JUL-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence of P6 precursor protein.
Monocyte chemoattractant; bovine P6-derivative; thrombosis; tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-JAN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R26581 standard; Protein; 99 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              inflammation therapy.
                                                                                 immunoassay;
                                                                                                                                                                                                                                             79 kqkwvq 84
                                                                                                                                                                                                                                                                                   Match 100.0%;
Local Similarity 100.0%;
les 6; Conservative
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Similarity 100.0%;
6; Conservative
                                                                                                                                        (first entry)
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DE-125251.
                                                                                  diagnosis;
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Pred.
0; M
                                                                                                                                                                                                                                                                                Score 53; DB 5; Len Pred. No. 1.15e+02; 0; Mismatches 0;
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                                                                                 prophylactic; bacterial;
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                                                                                                                                                                                                                                                                                                             Length 99;
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Query Match
Best Local S
Matches
                                                                    Representation factor type polypeptide and DNA persons, R06398.

Thuman monocyte chemotactic factor type polypeptide and DNA encoding it - useful as antibacterial and antitumour agents. Sclaim 2; Page 25; 27pp; English.

The sequence was deduced from the DNA sequence determined from three recombinant plasmids, pHMCF7, pHMCF25 and pHMCF29 which were isolated from a cDNA library prepd. from RNA extracted from thuman promyelocytic leukaemia cell line, HL-60 (ATCC CCL-240).

To vectors. In plasmids pHMCF7 and pHMCF29 bases 105 and 226 were T and G resp; in pHMCF25 they were C and A resp. The AA at posn. C 76 of the precursor protein is therefore not determined and may be either Ala or Thr. The protein may be produced by recombinant DNA techniques in E.coli, and is useful as a drug for treatment of certain bacterial infectons and cancers.
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Best Local S
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      detecting and preventing meningitis

claim 47; Fig 8/10; 98pp; English.

R73914 is the chemokine Human monocyte chemoattractant factor hMCP-1.

It contains the meningitis related antigenic sequences (MRHAS) claimed in R73895 and R73907, which are recognised by a monoclonal antibody from the hybridoma Rubella virus (RV)-1. The claimed MRHAS peptides may be used in immunoassays to diagnose the presence of bacterial and/or viral meningitis agents in a sample, or in prophylactic and therapeutic meningitis treatments. The peptides may also be used as vaccines against meningitis.

NB: Identified by matching corresponding MRHAS peptides.

Sequence 99 AA;
                                                                                                                                                                                                                                                                                                                                                         02-JAN-1990; U00004.
01-JAN-1989; JP-000065.
03-FEB-1989; JP-026438.
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(VALS/) VAN ALSTYNE D.
(VALS/) VAN ALSTYNE D.
(Sharma LR, Van Alstyne D;
WPI; 95-147431/19;
New peptide(s) and corresp. antibodies f
meningitis - the peptide(s) corresp. to
sites on bacterial and viral agents and
                                                                                                                                                                                                                                                                                                                             (USDC ) US SEC OF Furutani Y, Fukui
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    T 20
R06398 standard; protein; 99
R06398;
                                                            DNA techniques in certain bacterial Sequence 99 AA;
                                                                                                                                                                                                                                                                                              Oppenheim J;
WPI; 90-253802/33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human MCF precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Monocyte chemotactic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-DEC-1990 (first entry)
              Local Similarity
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) VAN ALSTYNE D.
LR, Van Alstyne
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6; Conservative
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100.0%;
llarity 100.0%;
Conservative
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/note-"Claim 1"
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T, Junich
                                                                                                                                                                                                                                                                                                                             Junichi Y, Masaaki Y, Matsushima
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   factor; antibacterial; antitumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                           or
Score
Pred.
0; M
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Pred. No. 1.15e+02;
0; Mismatches 0;
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 Mismatches
                No.
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                              2,
                             Length 99;
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Best Local :
                                                                                                                                                                                                                                                                                                                      W09219737-A.
12-NOV-1992.
27-APR-1992; J00550.
09-MAY-1991; JP-135950.
(DAIN ) DAINIPPON PHARM CO LTD.
Fukui T, Matsuo N, Yamada M, Yama
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human derived monocyte chemo-attractant peptide prods. - obtd. from human glioma cell line U-105MG or peripheral blood mononuclear leukocytes. Disclosure; fig 2; 66pp; English.

This is a human-derived monoyte chemo-attractant peptide (MCP-1) sequence MCP-1 exhibits optimal chemotactic activity at a concn. of lnM and has a mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg inflammatory disease, or for the control of neoplasms by accumulation of monocytes at the site of the infection. The corresp. DNA is obtd. by chemical synthesis, by screening reverse trascripts of mRNA from purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5.
An expression plasmid, pHMCO76 for product of 76 amino acids was constructed. DNA e prepd. using a recombinant plasmid pHMCF7. Sequence 99 AA;
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25-JUL-1989; .
30-MAR-1989; 330446.
30-MAR-1989; "--30446.
                                                                                                       Disclosure; Page 43-44; 56pp; I
An expression plasmid, pHMC076
                                                                                                                                                                                                           Prodn. of polypeptide(s) having monocyte chemotactic activity using expression plasmids with E. coli elements and specific
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Plasmid; monocyte chemotactic factor;
termination; terminator; initiation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 T 22
R28663 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human monocyte chemo-attractant peptide-1.
Human monocyte chemo-attractant peptide; i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                T 21
P95387 standard; protein; '
P95387;
25-JUL-1989 (first entry)
                                                                                                                                                                                E.coli strains
                                                                                                                                                                                                                                                                                       N-PSDB; Q30748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein
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Yoshimura T, Robinson EA, Appella E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
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||||||
1 KQKWVQ
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Local Similarity 100.0%;
Nes 6; Conservative
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                                                                 for producing MCF(76)
ted. DNA encoding MCI
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1.15e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              may lead to acquired resistance to a broad range of pathogens.

Sisclosure; Page 89-90; 131pp; English.

R85300 is the arabidopsis pathogen resistance gene RPP5 protein. In a construct which the RPP5 gene is expressed highly in genetic constructs which may be used to impart a broad range of pathogen resistance, by induction of variegation, to transgenic plants (or parts or propagules of plants) containing such constructs. RPP5 imparts resistance to the disease caused by the leaf mould fungal pathogen Cladosporium fulvum. Cf. fulvum contains avirulence (Avr) genes that confer recognition by plants containing Cf-genes, leading to the activation of host defence mechanisms to attack the disease.

CN.B. The amino acid sequence given here and that given as SEO ID 10 in the specification are different, see features table and T06308.
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Matches
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Best Local Similarity
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11-MAY-1994; GB-009394.

23-DEC-1994; WG-0G02812.

31-MAR-1995; GB-006658.

07-APR-1995; GB-007232.
10-OCT-1996.
09-APR-1996;
07-APR-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RPP5 downy mildew resistance protein.
Arabidopsis; RPP5; disease-resistance; downy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                W03659;
19-FEB-1997 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N 24
W03659 standard; Protein; 1269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Increasing plant pathogen resistance by induction of variegation may lead to acquired resistance to a broad range of pathogens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GATS-) GATSBY CHARITABLE Hammond-Kosack KE, Jones
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Arabidopsis sp.
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Pathogen resisitant; RPP5; tomato; C.fulvum; Avr 4; Avr 9; fungal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R85300;
14-APR-1996
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R85300 standard; Protein; 632
                                                                                                                WO9631608-A1
                                                                                                                                                                                                                     peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Peronospora parasitica;
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                                                                                                                                                                                                                                                                                                                             peptide
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6; Conservative
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Location/Qualifiers
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llarity 83.3%;
Conservative
   G00849.
GB-007232.
                                                                                                                                                                                                                     /note= "Peptide W03660 (claim primer T37477 (claim 23)" 437..441
                                                                                                                                              primer T37478
                                                                                                                                                                                                                                                                                                                                     104..109
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                                                                                                                                              "Peptide W06331 (claim 22), T37478 (claim 23)"
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 50; DB 16; Le Pred. No. 2.04e+02; 1; Mismatches 0;
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transgenic
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                                                  Example 11; Fig 5; 83pp; English.

The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) Drol3+ variant, which can be used to treat patients deficient in Ck beta10, while a Ck beta10 can be used to reduce excessive levels of Ck beta10 Ck beta10 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic diseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, regulates haematopoiesis and generates antibodies. Labelled Ck beta10 can be used to identify its cognate receptor, while cells expressing the receptor can be used to creen compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic syndrome, lung inflammation and atherosclerosis. Ck beta10 CDNA can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (Peronospora parasitica). The sequence includes leucline-rich repeat regions, characteristic of many pathogen-resistance genes. The sequence shows strong homology to pathogen-resistance proteins N (from tobacco, conferring tobacco-mosaic virus resistance) and L6 (from flax, conferring rust resistance), including regions involved in nucleotide binding (kinase-la (P-loop), kinase-2 and kinase-3a domains). Primers T37477-78, corresponding to a conserved region between peptides W03660-61, may be used to identify other resistance genes in plants. The RPP5 gene may be expressed in a transgenic plant to confer disease-resistance.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            plant to
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Drol3+ chemokine beta10 or monocyte chemotactic protein 4 variant. Human; chemokine beta10; Ck beta10; treatment; antagonist; solid tumour; infection; autoimmune disease; asthma; antibody; fibrotic disease; psoriasis; neurodegenerative disease; wound healing; haematopoiesis regulation; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Isolated Arabidopsis pathogen resistance gene RPP5 - for protransgenic plants esp. resistant to downy mildew fungus Claim 1; Fig 2; 59pp; English.
This sequence represents an Arabidopsis RPP5 protein, which confers disease-resistance against the downy mildew fungus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       23-FEB-1996; U02598.
23-FEB-1996; WO-U02598.
23-FEB-1996; WO-U02598.
(HUMA-) HUMAN GENOME SCI INC.
Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH, Parmelee D, White J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              T 25
W22675 standard; Protein; 71
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                                                                                                                                                                                                                                                                                                                                                                                                     Polypeptide encoding chemokine beta 4 and monocyte chemotactic protein 4 - useful to treat tumours, autoimmune disease, infection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
WO9731098-A1.
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                  be used to isolate genes encoding similar and for chromosome identification.
                                                                                                                                                                                                                                                                                                                                                                                    asthma and fibrosis
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Pred. No. 2.04e+02;
1; Mismatches 0
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Example 11; Fig 5; 83pp; English.

The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) Bac 3 variant, which can be used to treat patients deficient in Ck beta10, while a Ck beta10 can be used to reduce excessive levels of Ck beta10 can tagonist can be used to reduce excessive levels of Ck beta10 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic compounds for can be used to treat the diseases. It also promotes wound healing, regulates haematopoiesis and generates cantibodies. Labelled Ck beta10 can be used to identify its cognate receptor, while cells expressing the receptor can be used to screen compounds for (antigonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and be used to isolate genes encoding similar peptides, in gene therapy constant for chromosome identification.
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Best Local S
Matches
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Best Local Similarity
                         M22672;
w22672;
w22672;
19-MAR-1998 (first entry)
Bac 2 chemokine beta10; or monocyte chemotactic protein 4 variant.
Human; chemokine beta10; Ck beta10; treatment; antagonist;
solid tumour; infection; autoimmune disease; asthma; antibody;
fibrotic disease; psoriasis; neurodegenerative disease;
wound healing; haematopoiesis regulation; gene therapy;
chromosome identification; monocyte chemotactic protein 4;
leukaemia; MCP-4; Bac 2 variant.
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W22-73
W22673;
19-MAR-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          be used to isolate and for chromosome Sequence 75 AA;
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Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima
Parmelee D, White J;
WPI: 97-435153/40
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WO9731098-A1.
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23-FEB-1996; WO-U02598.
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1 KQKWVQ 6
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larity 83.3%;
Conservative
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83.3%;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 49; DB 27;
Pred. No. 2.47e+02;
1; Mismatches C
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The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) Bac 2 variant, which can bused to treat patients deficient in Ck beta10, while a Ck beta10 antagonist can be used to reduce excessive levels of Ck beta10 beta10 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic opportunistic infections, autoimmune diseases. It also
                                               Example 11; Fig 5; 83pp; English.

Example 11; Fig 5; 83pp; English.

The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) Droll/2 variant, which can be used to treat patients deficient in Ck beta10, while a Ck beta10 antagonist can be used to reduce excessive levels of Ck beta10. Ck beta10 can be used to treat leukaemia, solid tumours, chronic or beta10 can be used to treat leukaemia, solid tumours, fibrotic
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Adams M, Alderson R, Applebaum E, Li H, Li Y,
Parmelee D, White J;
WPI: 97-435153/40.
   antibodies.
                 promotes wound
                                                                                                                                                                                                            Polypeptide encoding chemokine beta 4 and monocyte chemotactic protein 4 useful to treat tumours, autoimmune disease, infect
                                                                                                                                                                                                                                                   (HUMA-) HUMAN GENOME SCI INC.
Adams M. Alderson R. Applebaum
Parmelee D. White J;
WPI; 97-435153/40.
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23-FEB-1996; U02598.
23-FEB-1996; WO-U02598
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autoimmune disease, infection,
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Example 11; Fig 5; 83pp; English.

Characteristics betail (Ck betail) or monocyte chemotactic protein 4 (MCP-4) Bac 1 variant, which can be used to treat patients deficient in Ck betail, while a Ck betail antagonist can be used to reduce excessive levels of Ck betail (Ck betail) can be used to reduce excessive levels of Ck betail (Ck betail) can be used to reduce excessive levels of Ck betail (Ck betail) can be used to reduce excessive levels of Ck betail (Ck betail) can be used to seases, asthma, fibrotic of the contraction of the contractio
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Matches 5; Conser
                                                    Query Match
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Bac 1 chemokine beta10 or monocyte chemotactic protein 4 variant.

Human; chemokine beta10; Ck beta10; treatment; antagonist;

solid tumour; infection; autoimmune disease; asthma; antibody;

fibrotic disease; psoriasis; neurodegenerative disease;

wound healing; haematopolesis regulation; gene therapy;
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W22671 standard; Protein;
W22671;
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23-FEB-1996; U02598.
23-FEB-1996; WO-U02598
                                                                                                     and for chromosome Sequence 82 AA;
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Search completed: Thu Apr 1 07:33:30 1999 Job time: 19 secs.
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                                                                                                                                                                                                                           PT Ten new chemokine(s) able to mobilise stem cells - used where PT increase resistance to infection PT increase resistance to infection PT increase resistance to infection PS Claim 7; Page 11-12; 24pp; English.

CC of mobilishing stem cells. The chemokine can be used therapeutically to CC improve stem cell mobilisation, optionally together with a colony CC stimulating factor or other haematoregulatory agent. It can be used wherever an increased level of haematopetic cells is needed, e.g. to increase the immune response to chronic infection (particularly CC bacterial or parasitic), to promote wound healing, in (transplant) CC immunosuppressive treatment or disease, and to provide more rapid CC ciseases. The induced stem cells may be harvested for subsequent return to the patient, optionally after they have been genetically manipulated CC co-administered with a cytotoxic drug.
                                                                                                                                             Query Match 92.5%;
Best Local Similarity 83.3%;
Matches 5; Conservative
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Stem cell mobilising chemokine CKbeta-10.

Haematopoietic cell; parasitic infection; colony stimulating factor; haematoregulator; immune response; bacterial infection; transplant; wound healing; bone marrow; immunosuppression; regeneration; neoplastic disease; viral disease; gene therapy; cytotoxic drug.
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23-0CT-1996; U16959.
24-0CT-1995; US-006051.
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WPI; 97-258956/23.
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Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

MPsrch\_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:32:23 1999; MasPar time 3.10 Seconds 72.455 Million cell updates/sec

Tabular output not generated.

Sequence: Description: Perfect Score: Title: >US-08-927-939-9 (1-6) from US08927939.pep 53 1 KQKWVQ 6

Scoring table: PAM 150 Gap 15

Searched: 116738 seqs, 37463448 residues

Post-processing: Minimum Match 0\$ Listing first 100 summaries

Database: pir58
1:pir1 2:pir2 3:pir3 4:pir4

Statistics: Mean 21.949; Variance 39.337; scale 0.558

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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	1.38e+02	1.38e+02	1.38e+02	1.38e+02	1.38e+02	1.38e+02	9.89e+01	9.89e+01	9.89e+01	5.05e+01	5.05e+01	5.05e+01	5.05e+01	5.05e+01	5.05e+01		3.58e+01	1.25e+01	1.25e+01	1.25e+01	1.25e+01	1.25e+01	Pred. No.		

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                                                          Structure of human monocyte chemotactic protein regulation by {\tt TPA}.
                                                                                        Shyy, Y.J.; Li, Y.S.; Kolattukudy, P. Biochem. Biophys. Res. Commun. (1990)
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Biochem. Biophys. Res. Commun. (1994) 199:962-968

Porcine luteal cells express monocyte chemoattractant protein-1 (MCP-1): Analysis by polymerase chain rea
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Cloning and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCAF).
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#journal Adv. Exp. Med. Biol. (1991) 305:47-56
#title Human monocyte chemoattractant protein-1 (MCP-1).
#cross-references MUID:92095166
#accession I51841
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##cross-references GB:M30816; GB:M31625;
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##rcsidues 1-99 ##label YOS
##cross-references GB:X14768; NID:g34513; PID:g34514
##crosr-refarences GB:X14768; NID:g34513; PID:g34514
##experimental_source glioma cell line U-105MG
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                                                                                                                                                                            Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tan
Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; App
Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854
Complete amino acid sequence of a human monocyte
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A chemoattractant expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical
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The human homolog of the JE gene encodes a mc
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FEBS Lett. (1989) 244:487-493
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#map_position 17q11.2-17q12
CLASSIFICATION #superfamily macrophage inflamm
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#title identification of the monocyte chemotactic protein from
osteosarcoma cells and monocytes: detection of a novel
#cross-references_MUID:90211336
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##cross-references GB:S69738; NID:g545464; PID:g545465
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Local Similarity 100.0%;
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                                                                                      Wempe, F.; Kuhlmann, J.K.; Scheit, K.H.
Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
Characterization of the bovine monocyte chemoattractant
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JC2336
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monocyte chemoattractant protein-1 - bovine
monocyte seguence_revision 20-Feb-1995 #text_change
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#cross-references MUID:92096117
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#*residues 1-99 ##label WEM
#*cross-references GB:M84602; GB:M85264; NID:g163394; PID:g163395
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##residues 50-68,'X',70-74,'X',76 ##label WE2
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                                                    J. Immunol. (1991) 146:3483-3488
Neutrophil attractant/activation
chemoattractant protein-1 in ra
expression in spleen cells.
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J. Immunol. (1991) 146:3483-3488
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monocyte chemoattractant protein-1 - rabbit
#formal_name Oryctolagus cuniculus #common_name domestic
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#authors

Bevan, M.; Bancroft, I.; Bent, E.; Love, K.; Goodman, H.;
Dean, C.; Bergkamp, R.; Dirkse, W.; Van Staveren, M.;
Stiekema, W.; Drost, L.; Ridley, P.; Hudson, S.A.; Patel,
K.; Murphy, G.; Piffanelli, P.; Wedler, H.; Wedler, E.;
Wanmbutt, R.; Weitzenegger, T.; Pohl, T.M.; Terryn, N.;
Gielen, J.; Villarroel, R.; De Clerck, R.; Van Montagu, M.;
Lecharny, A.; Auborg, S.; Gy, I.; Kreis, M.; Lao, N.;
Kavanagh, T.; Hempel, S.; Kotter, P.; Entian, K.D.; Rleger,
M.; Schaeffer, M.; Funk, B.; Mueller-Auer, S.; Silvey, M.;
James, R.; Montfort, A.; Pons, A.; Pulgdomenech, P.;
Piravandi, E.; Obermaier, B.; Hilbert, H.; Duesterhoft, A.;
Moores, T.; Jones, J.D.G.; Eneva, T.; Palme, K.; Benes, V.;
Rechman, S.; Ansorge, W.; Cooke, R.; Berger, C.; Delseny,
M.; Voet, M.; Volckaert, G.; Mewes, H.W.; Klosterman, S.;
*#journal Nature (1998) 391:485-488

Nature (1998) 391:485-488

*#cross-references MUID:98121113

##cross-references MUID:98121113

##cross-references MUID:98121113
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19-May-1994 *sequence_revision 19-May-1994 *text_change
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Best Local Similarity 83.3%;
                                                                                                                                                                                                                                                                                                                                                        #authors Beaubien, B.C.; Collins, P.D.; Jose, P.J.; Totty, N.F.;

Hsuan, J.; Waterfield, M.D.; Williams, T.J.

#journal Blochem. J. (1990) 271:797-801

#title A novel neutrophil chemoattractant generated during an inflammatory reaction in the rabbit peritoneal cavity in vivo. Purification, partial amino acid sequence and structural relationship to interleukin 8.

#cross-references MUID:91058518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               #authors Yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146:3483-3488
#title Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and expression in spleen cells.
#cross-references_MUID:91225489
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##cross-references GB:M57439; NID:g165552; PID:g165553
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Cloning of a canine gene homologous
interleukin-8-encoding gene.
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interleukin-8 - sheep
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##cross-references EMBL:X78306; NID:g463253; PID:g463254
#FICATION #superfamily beta-thromboglobulin
#superfamily beta-thromboglobulin
thromboglobulin
#superfamily beta-thromboglobulin
#superfamily beta-thromboglobulin
##status
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Local Similarity 83.3%;
hes 5; Conservative
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Submitted to the EMBL Data Library, March 1994
Nucleotide sequence of ovine interleukin 8 cDNA using polymerase chain reaction.
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#superfamily
#length 101
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                             Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch, M.J.; Weiss, D.J.; Murtaugh, M.P.
J. Biol. Chem. (1994) 269:77-85
Regulation of interleukin-8 expression in porcine alveolar macrophages by bacterial lipopolysaccharide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          #formal_name Ovis orientalis aries, Ovis ammon aries
#common_name domestic sheep
06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
                                                                                                                                                               A53096 #type complete
interleukin-8 precursor - pig
#formal_name Sus scrofa domestica #common_name domestic pig
02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change
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preliminary
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    sheep

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1; Mismatches
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Pred. No. 5.05e+01;
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Pred. No. 5.05e+01;
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##residues 1-103 ##label LIN
##cross-references GB:M86923; NID:g164520; PID:g164521
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11633 #checksum
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ENTRY
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Best Local S
Matches
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#title Molecular cloning of porcine alveolar macrophage-derived neutrophil chemotactic factors I and II; identification porcine IL-8 and another intercrine-alpha protein.
#cross-references MUID:93041741
#accession A44253
Query Match
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Best Local
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                                                            ##rosidues 15 ##label DIX
##cross-references GB:L06633; NID:g431327; PID:g431328
##note the authors translated the codon AGA for residue 304
Lys, GTT for residue 305 as Gln, and GCT for residue
                                                                                                                      ##molecule_type mRNA
##residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ##status preliminary
##mollecule_type mRNA; protein
##residues 1-103 ##label GOO
##experimental_source alveolar macrophage
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Local Similarity 83.3%;
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Local Similarity 83.3%;
es 5; Conservation
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                                                                                                                                                                                        Dixon, B.; Sahely, B.; Liu, L.; Pohajdak, B. Biochim. Biophys. Acta (1993) 1216:321-324 Cloning a cDNA from human NK/T cells which codes unusual leucine zipper containing protein.
                                                                                                                                                                                                                                                                                                             $43424  #type complete zipper containing protein - human zipper common_name man formal_name Homo sapiens #common_name man 07-Sep-1994 #sequence_revision 10-Nov-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                #superfamily beta-thromboglobulin
#length 103 #molecular-weight 11677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   alveolar macrophage chemotactic factor-I (AMCF-I)
interleukin-8 homolog - pig
#formal_name Sus scrofa domestica #common_name domestic
30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change
                                    #length
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                                               Lys, GTT ro
 92.5%;
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                                #molecular-weight 36318
 Score 49;
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Pred. No. 5.05e+01;
1; Mismatches 0
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Pred. No. 5.05e+01;
1; Mismatches 0;
 DB 2;
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Length 324
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Nakamura, Y.; Miyajima, N.; Hirosawa, M.; Sugiura, M.; Sasamoto, S.; Kimura, T.; Hosouchi, T.; Matsuno, A.; Muraki, A.; Nakazaki, N.; Naruo, K.; Okumura, S.; Shimpo, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.; Tabata, S.

#journal DNA Res. (1996) 3:109-136
#fitle Sequence analysis of the genome of the unicellular cyanobacterium Synechocystis sp. PCC6803. II. Sequence determination of the entire genome and assignment of potential protein-coding regions.

#cross-references MUID:97061201
#accession S76877
                                                                                                                                                                                                                                                         ACCESSIONS
REFERENCE
#authors
     FEATURE
1-32
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DATE
                                                              ##residues 1-579 ##label BOO
##cross-references GB:U17108; NID:g897562; PID:g897563
CLASSIFICATION #superfamily C4b-binding protein alpha chain;
factor H repeat homology
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ENTRY
TITLE
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Best Local Similarity 66.7%;
Matches 4; Conservative
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Matches
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##cross-references EMBL:D90917; GB:AB001339; NID:g1653836; PID:d1019522;
PID:g1653879
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Science (1995) 269:86-89
Tissue- and species-specific expression of sp56, a mouse sperm fertilization protein.
A56740
                                                                                                                                                                                                                                                                                                                           sperm-egg recognition protein precursor - mouse
#formal_name Mus musculus #common_name house mouse
08-Jul-1995 **sequence_revision 03-Aug-1995 **text_change
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#length 145
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hypothetical protein - Synecho
#formal_name Synechocystis sp.
PCC 6803
                                                  fertilization; homomultimer; peripheral membrane
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#domain signal sequence #status predicted #label SIG\
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1; Mismatches 0;
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Pred. No.
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##note the nucleotide sequence was submitted to the EMBL Data
Library, November 1996
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SGC3
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#formal_name Rattus norvegicus
21-Feb-1995 #sequence_revision
08-sep-1997
                         Jose, P.J.; Adcock, I.M.; Griffiths-Johnson, D.A.; Berkman N.; Wells, T.N.C.; Williams, T.J.; Power, C.A. Biochem. Biophys. Res. Commun. (1994) 205:788-794 Eotaxin: Cloning of an eosinophil chemoattractant cytokine and increased mRNA expression in allergen-challenged
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Nucleic Acids Res. (1996) 24:4420-4449
Complete sequence analysis of the geno
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Pred. No. 9.89e+01;
1; Mismatches 0;
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Pred. No. 9.89e+01;
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05-Apr-1995 #text_change
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Best Local Similarity 83.3%;
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#title
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#title Constitutive and allergen-induced expression
in the guinea pig lung.
#cross-references MUID:95173589
                                                                                                                                                                                         #authors
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:FICATION #superfamily macrophage inflammatory protein
XY #length 96 #molecular-weight 10753 #checksu
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##cross-references EMBL:X77603; NID:g602551; PID:g602552
#This protein is identified as a potent eosinophil chemoattractant.
FICATION #superfamily macrophage inflammatory protein
##residues 1-99 ##label HOS
##experimental_source corpus luteum
protein #superfamily macrophage inflammatory protein
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Local Similarity 83.3%;
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Biochem. Biophys. Res. Commun. (1994) 205:148-153

Porcine luteal cells express monocyte chemoattractant
protein-2 (MCP-2): Analysis by cDNA cloning and nor
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02-Jul-1996 #sequence_revision 02-Jul-1996 #text
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#formal_name Sus scrofa domestica #common_name domestic pig
24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change
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##cross-references GB:X72309
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monocyte chemotactic protein 3 precursor -
monocyte chemotactactant protein MCP-3
#formal_name Homo sapiens #common_name man
28-Oct-1994 #sequence_revision 28-Oct-1994
                                                                                                                                               Opdenakker, G.; Fiten, P.; Nys, G.; Froyen, G.; Van Roy, N.; Speleman, F.; Laureys, G.; Van Damme, J. Genomics (1994) 21:403-408
The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome 17q11.2-q12.
Human monocyte chemotactic protein-3 (MCP-3): Molecular cloning of the cDNA and comparison with other chemokines
               Biochem. Biophys. Res. Commun. (1993) 191:535-542
Human monocyte chemotactic protein-3 (MCP-3): Molecular
                                                                 Opdenakker, G.; Froyen, G.; Fiten, P.; Proost,
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#length 101 #molecular-weight 11414 #checksum
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Neutrophil attractant protein-1 - guinea pig
#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
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larity 83.3%;
Conservative
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#product monocyte chemoattractant protein-2 #status
predicted #label MAT
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Pred. No. 1.38e+02;
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Pred. No. 1.38e+02;
0; Mismatches 1;
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Best Local Similarity 100.0%;
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#map_position 17q11-17q12
#introns 36/1; 75/2
$SIFICATION #----
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#title cDNA cloning of guinea pig monocyte and expression of the recombinant #cross-references MUID:93267104
#accession I48147
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##molecule_type mRNA
##resiance
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##cross-references EMBL:X71087; NID:g288396; PID:g288397
This protein induces proteinase secretion and chemo-
macrophages and monocytes.
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Local Similarity 100.0%;
nes 5; Conservative
                                78 QKWVQ 82
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Molecular cloning of MCP-3: a human monocyte-derived monocyte chemoattractant protein.
                                                                                                                                         MCP-1 #superfamily macrophage inflammatory protein #length 120 #molecular-weight 13741 #checksum
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monocyte chemoattractant protein-1 - guinea pig
#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
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cytokine; glycoprotein; inflammation
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                                                                        Conservative
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Pred. No. 1.38e+02;
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1.38e+02;
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##cross-references GB:AE000755; NID:g2984063; PID:g2984068; GB:AE000657
##experimental_source strain VF5
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##cross-references GB:AE001226; GB:AE000520; NID:g3322785; PID:g3322795
##experimental_source strain Nichols
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  y Match 86.8%;
Local Similarity 100.0%;
hes 5; Conservative
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Sutton, G.G.; Dodson, R.; Gwinn, M.; Hickey, E.K.; Clayton,
R.; Ketchum, K.A.; Sodergren, E.; Hardham, J.M.; McLeod,
M.P.; Salzberg, S.; Peterson, J.; Khalak, H.; Richardson,
D.; Howell, J.K.; Chidambaram, M.; Utterback, T.; McDonald,
L.; Artiach, P.; Bowman, C.; Cotton, M.D.; Fujii, C.;
Garland, S.; Hatch, B.; Horst, K.; Roberts, K.; Watthey,
L.; Weidman, J.; Smith, H.O.; Venter, J.C.
Science (1998) 281:375-388
Complete genome sequence of Treponema pallidum, the syphilis
                                                                                                                                                                                                                                                                                                                                                                          Deckert, G.; Warren, P.V.; Gaasterland, T.; Young, W.G.;
Lenox, A.L.; Graham, D.E.; Overbeek, R.; Snead, M.A.;
Keller, M.; Aujay, M.; Hurrer, R.; Feldman, R.A.; Short,
J.M.; Olson, G.J.; Swanson, R.V.
Nature (1998) 392:353-358
The complete genome of the hyperthermophilic bacterium
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C71317
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#length 289 #molecular-weight 33535 #checksum
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#formal_name Aquifex aeolicus
08-May-1998 #sequence_revision 08-May-1998 #text_change
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hypothetical protein T90503 - syphilis spirochete
formal_name Treponema pallidum subsp. pallidum #common_name
syphilis spirochete
24-Jul-1998 #sequence_revision 24-Jul-1998 #text_change
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Best Local Similarity 66.7%;
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#title
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                                                                                                #cross-references MUID:95350630 #accession E64019
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##cross-references GB:AP000001; NID:g3236128; PID:d1030101; PID:g3256475
##experimental_source strain OT3
##enote this accession replaces an interim accession for a
                       ##residues
##cross-references
                                            ##molecule_type DNA
                                                                           ##status
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                                                                                                                                        Fleischmann, R.D.; Adams, M.D.; White, O.; Clayton, R.A.;
Kirkness, E.F.; Kerlavage, A.R.; Bult, C.J.; Tomb, J.F.;
Dougherty, B.A.; Merrick, J.M.; McKenney, K.; Sutton, G.;
FitzHugh, W.; Fields, C.; Gocayne, J.D.; Scott, J.;
Shirley, R.; Liu, L.I.; Glodek, A.; Kelley, J.M.; Weidman,
J.F.; Phillips, C.A.; Spriggs, T.; Hedblom, E.; Cotton,
M.D.; Utterback, T.R.; Hanna, M.C.; Nguyen, D.T.; Saudek,
D.M.; Brandon, R.C.; Fine, L.D.; Fritchman, J.L.; Fibrmann,
J.L.; Geoghagen, N.S.M.; Gnehm, C.L.; McDonald, L.A.;
Small, K.V.; Fraser, C.M.; Smith, H.O.; Venter, J.C.
Science (1995) 269:496-512
Whole-genome random sequencing and assembly of Haemophilus
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Hino, Y.; Yamamoto, S.; Sekine, M.; Baba, S.; Kosugi, H.;
Hosoyama, A.; Nagai, Y.; Sakai, M.; Ogura, K.; Otsuka, R.;
Nakazawa, H.; Takamiya, M.; Ohfuku, Y.; Funahashi, T.;
Tanaka, T.; Kudoh, Y.; Yamazaki, J.; Kushida, N.; Oguchi,
A.; Aoki, K.; Yoshizawa, T.; Nakamura, Y.; Robb, F.T.;
Horikoshi, K.; Masuchi, Y.; Shizuya, H.; Kikuchi, H.
DNA Res. (1998) 5:55-76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            #formal_name Haemophilus influenzae
18-Aug-1995 #sequence_revision 18-Aug-1995 #text_change
10-Oct-1997
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#formal_name Pyrococcus horikoshii
14-Aug-1998 #sequence_revision 14-Aug-1998 #text_change
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hypothetical protein HI1054 - Haemophilus influenzae (strain
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                                                                    nucleic acid sequence not shown; translation not shown
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1-460 ##label TIGR
es GB:U32786; GB:L'
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Pred. No. 1.38e+02;
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GB:L42023; NID:g1574605; PID:g1574617;
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CLASSIFICATION #superfamily con:
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Best Local Similarity 50.0%;
Conservative
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Best Local Similarity 100.0%;
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##residues 1-141 ##label BUL
##cross-references GB:U67504; GB:L77117; NID:g1591248; PID:g1591254;
##cross-references TIGR:MJ0349; PID:g1510625
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Tomb, J.F.; Adams, M.D.; Reich, C.I.; Overbeek, R.;
Kirkness, E.F.; Weinstock, K.G.; Merrick, J.M.; Glodek, A.;
Scott, J.L.; Geoghagen, N.S.M.; Weidman, J.F.; Fuhrmann,
J.L.; Nguyen, D.; Utterback, T.R.; Kelley, J.M.; Peterson,
J.D.; Sadow, P.W.; Hanna, M.C.; Cotton, M.D.; Roberts,
K.M.; Hurst, M.A.; Kaine, B.P.; Borodovsky, M.; Klenk,
H.P.; Fraser, C.M.; Smith, H.O.; Woese, C.R.; Venter, J.C.
Science (1996) 273:1058-1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    #superfamily conserved hypothetical protein MJ0080
#length 141 #molecular-weight 16132 #checksum 64
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hypothetical protein yfiT - Bacillus subtilis
#formal_name Bacillus subtilis
05-pec-1997 #sequence_revision 05-pec-1997 #text_change
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R.D.; Sutton, G.G.; Blake, J.A.; FitzGerald, L.M.; Clayt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #formal_name Methanococcus jannaschii
13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change
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              unst, F.; Ogasawara, N.; Moszer, I.; Albertini, A.M.;
Alloni, G.; Azevedo, V.; Bertero, M.G.; Bessieres, F.;
Bolotin, A.; Borchert, S.; Boriss, R.; Boursier, L.; Brans,
A.; Braun, M.; Brignell, S.C.; Bron, S.; Brouillet, S.;
Bruschi, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.;
Choi, S.K.; Codani, J.J.; Connerton, I.F.; Cummings, N.J.;
Daniel, R.A.; Denizot, F.; Devine, K.M.; Duesterhoeft, A.;
Ehrlich, S.D.; Emmerson, P.T.; Entian, K.D.; Errington, J.;
Fabret, C.; Ferrari, E.; Foulger, D.; Fritz, C.; Fujita,
M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Galleron,
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translation not shown
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Pred. No. 1.90e+02;
3; Mismatches C
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Pred. No. 1.38e+02;
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Best Local Similarity 66.7%;
Matches 4; Conservative
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##residues 1-178 ##label KUN
##cross-references GB:Z99108; GB:AL009126; NID:g2633055; PID:e1182829;
##cross-references GB:Z99108; GB:AL009126; NID:g2633055; PID:e1182829;
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The complete genome sequence of the Gram-positive bacterium Bacillus subtilis.
Bevan, M.; Bancroft, I.; Bent, E.; Love, K.; Goodman, H.;
Dean, C.; Bergkamp, R.; Dirkse, W.; Van Staveren, M.;
Stlekema, W.; Drost, L.; Ridley, P.; Hudson, S.A.; Patel,
K.; Murphy, G.; Piffanelli, P.; Wedler, H.; Wedler, E.;
Wambutt, R.; Wettzenegger, T.; Pohl, T.M.; Terryn, N.;
Gielen, J.; Villarroel, R.; De Clerck, R.; Van Montagu, M.;
Lecharny, A.; Auborg, S.; Gy, I.; Kreis, M.; Lao, N.;
Kavanagh, T.; Hempel, S.; Kotter, P.; Entlan, K.D.; Rieger,
M.; Schaeffer, M.; Funk, B.; Mueller-Auer, S.; Silvey, M.;
James, R.; Montfort, A.; Pons, A.; Pulgdomenech, P.; Douka,
A.; Voukelatou, E.; Milioni, D.; Hatzopoulos, P.;
Piravandi, E.; Obermaier, B.; Hilbert, H.; Duesterhoft, A.;
Moores, T.; Jones, J.D.G.; Enewa, T.; Palme, K.; Benes, V.;
Rechman, S.; Ansorge, W.; Cooke, R.; Berger, C.; Delseny,
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#length 178 #molecular-weight 20666 #checksum
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Best Local Similarity 66.7%;
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#title Analysis of 1.9 Mb of contiguous sequence from chromosome 4
#cross-references MUID:98121113
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##cross-references EMBL:X59720; NID:g1907116; PID:e264569; PID:g1907219;
MIPS:YCR082w
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#formal_name Saccharomyces cerevisiae
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hypothetical protein YCR082w - yeast (Saccharomyces
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                                                                                                                                                                                                                                                                                                                                                                                 14-Nov-1997
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1; Mismatches 0
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Sequence Database, March 1992
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MPsrch\_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:31:07 1999; MasPar time 2.11 Seconds 76.257 Million cell updates/sec

Title: >US-08-927-939-9
Description: (1-6) from US08927939.pep
Perfect Score: 53
Sequence: 1 KQKWVQ 6

Scoring table: PAM 150
Gap 15

Searched: 74019 seqs, 26840295 residues

Post-processing: Minimum Match 0% Listing first 100 summaries

Database: swiss-prot36 1:swissprot

Statistics: Mean 22.666; Variance 35.225; scale 0.643

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result	Score	% Query Match	Length D	₽B	ID	Description	Pred. No.
<b>-</b>	53	100.0	99	1	MCP1_HUMAN	MONOCYTE CHEMOTACTIC P	4.26e+00
2	53	100.0	99	_	MCP2_BOVIN	E CHEMOTACT	4.26e+00
ω	53	100.0	99	-	MCPA_BOVIN	CHEMOTACTIC	4.26e+00
4	53	100.0	99	_	MCP1_PIG		4.26e+00
տ	53	100.0	101	_	MCP1_CANFA	E CHEMOTACTIC	4.26e+00
σ	53	100.0	125	_	MCP1_RABIT		4.26e+00
7	49	92.5	98	۲	MCP4_HUMAN		2.02e+01
œ	49	92.5	101	-	IL8_BOVIN	INTERLEUKIN-8 PRECURSO	
9	49	92.5	101	_	IL8_CANFA	INTERLEUKIN-8 PRECURSO	2.02e+01
10	49	92.5	101	_	IL8_RABIT	INTERLEUKIN-8 PRECURSO	2.02e+01
11	49	92.5	101	-	IL8_SHEEP	INTERLEUKIN-8 PRECURSO	2.02e+01
12	49	92.5	103	-	IL8_PIG	INTERLEUKIN-8 PRECURSO	2.02e+01
13	47	88.7	651	هسو	PSTA_MYCPN	PHOSPHATE TRANSPORT SY	4.26e+01
14	46	86.8	96	ш	EOTA_CAVPO	EOTAXIN PRECURSOR (EOS	6.15e+01
15	46	86.8	97	Н	EOTA_HUMAN	EOTAXIN PRECURSOR (EOS	6.15e+01
16	46	86.8	97	_	EOTA_MOUSE	EOTAXIN PRECURSOR (EOS	6.15e+01
17	46	86.8	97	۲	EOTA_RAT	EOTAXIN PRECURSOR (EOS	6.15e+01
18	46	86.8	99	_	MCP2_PIG	MONOCYTE CHEMOTACTIC P	6.15e+01
19	46	86.8	99	۳	MCP3_HUMAN	MONOCYTE CHEMOTACTIC P	6.15e+01
20	46	86.8	101	سر	IL8_CAVPO	INTERLEUKIN-8 PRECURSO	6.15e+01
21	46	86.8	120	μ	MCP1_CAVPO	MONOCYTE CHEMOTACTIC P	6.15e+01
22	46	86.8	266	۳	EL1_BOVIN	ELASTASE 1 PRECURSOR (	•
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RESULT RE
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SEQUENCE OF 24-99.
MEDLINE; 89184525.
ROBINSON E.A., YOSHIMURA T., LEONARD E.J.,
SHABANOWITZ J., HUNT D.F., APPELLA E.;
SHABANOWITZ J., ACAD. SCI. U.S.A. 86:1850-1854
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                              SEQUENCE OF 29-53 AND 8 MEDLINE; 90211336.
DECOCK B., CONINGS R., BIOCHEM. BIOPHYS. RES.
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01-JAN 1990 (REL. 13, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)
(MONOCYTE CHEMOATTRACTANT PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE
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HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                   YOSHIMURA T., LEONARD E.J.;
ADV. EXP. MED. BIOL. 305:47-56(1991).
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MEDLINE; 89165862.
FURUTANI Y., NOMURA H., NOTAKE
LARSEN C.G., OPPENHEIM J.J., M.
BIOCHEM. BIOPHYS. RES. COMMUN.
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OL. 9:4687-4695(1989).
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ES. COMMUN. 169:346-351(1990).
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                             LENAERTS J.-P., BILIAU A., COMMUN. 167:904-909(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NOTAKE M., OYAMADA Y., FUKUI J.J., MATSUSHIMA K.; COMMUN. 159:249-255(1989).
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YQA4_CAEEL
YDM6_SCHPO
POLG_PYFV1
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                                             VAN DAMME
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                                                                                                                                       GRIFFIN P.R.,
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3.51e+02
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EMBL; A17786; G641145;

PIR; A35474; A35474.

PIR; S03339; S03339;

PDB; LDOK; 12-MAR-97.

PDB; LDOM; 14-OCT-96.

PDB; LDOM; 14-OCT-96.

PDB; LDOM; 14-OCT-94.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WEBER M., UGG
                               SIGNAL
CHAIN
MOD_RES
DISULFID
DISULFID
CARBOHYD
VARIANT
MUTAGEN
                                                                                                                                                                                                                                                                                 PROSITE; |
CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL;
EMBL;
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EMBL;
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-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRUCTURE BY NMR.
STRUCTURE; 96234959.
HANDEL T.M., DOMAILLE P.J.;
BIOCHEMISTRY 35:6569-6584(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE; 91312872.
GRONENBORN A.M., CLORE G.M.;
PROTEIN ENG. 4:263-269(1991)
[11]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
MEDLINE; 97143315.
LUBKOWSKI J., BUJACZ G., DOMAILLE P.J.,
NAT. STRUCT. BIOL. 4:64-69(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUBUNIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE; 94
ZHANG Y.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MUTAGENESIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE; 96195223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EFFECT OF DELETION OF N-TERMINAL RESIDUES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE; 97053697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ANG Y.J., RUTLEDGE B.J., ROLLINS B.J.; BIOL. CHEM. 269:15918-15924(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY, HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES CHARACTERIZED BY MONOCYTIC INFILITARIES, LIKE PSORIASIS, REDUMATOI ARTERITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF ATHEROSCLEROSIS.

SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.

PIM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGE CELL SELECTIVITY. DELETION OF THE AMINO- TERMINAL RESIDUE CONVERT IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOATTRACTANT SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C.) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            M31626; G386961; J

M30816; G386961; J

M31625; G307163; -

M28226; G30703; -

X14768; G34514; -

X14768; G487124; -

M37719; G487124; -

M28225; G38007; -

M28223; G38007; -

M28223; G338007; -

M28224; G338007; -

M28223; G338007; -

M28223; G345465; -

M28224; G338007; -

M28224; G338007; -

M28223; G34665; -

M28224; G34666; -

M26738; G545465; -

M26738; -

M27738; -

M27738;
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[TE; PS00472;
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                                                                                                                                                                                                                                                                              CHEMOTAXIS;
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ED. 183:681-685(1996).
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XIS; SIGNAL; INFLAMM
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4:64-69(1997).
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POTENTIAL.
A -> T.
MISSING: LOSS (
MISSING: LOSS (
                                                                                                                                                                                MONOCYTE CHEMOTACTIC PROTEIN 1. PYRROLIDONE CARBOXYLIC ACID.
                                                                                                                                                                                                                                                                           INFLAMMATORY RESPONSE; 3D-STRUCTURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HANDEL T.M.,
   유유
   ACTIVITY.
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MUTAGEN

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Best Local Similarity
Matches 6; Conser
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Best Local
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DISULFID
SEQUENCE
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Q1-NOV-1995 (REL. 32, CREATED)
Q1-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
Q1-NOV-1998 (REL. 36, LAST ANNOTATION UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
CHEMOATTRACTANT PROTEIN 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MUTAGEN
                   P28291;
01-DEC-1992 (REL. 24, CREATED)
01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A)
SEMINAL FLUID PROTEIN)
SEMINAL FLUID PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
MEDLINE; 94114084.
WEMPE F., HANES J., SCHEIT K.H.;
DNA CELL BIOL. 13:1-8(1994).
-!- FUNCTION: CHEMOTACTIC FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; ARTIODACTYLA.
  EUKARYOTA;
                                                                                                                                                                                                              MCPA_BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOD_RES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE
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                                                                                                                                                                                                                                                                                                                                                  79 KQKWVQ 84
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBDRIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).

SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOK
C-C) (CHEMOKINE CC).

C-C) (CHEMOKINE CC).

S67954; E118856; -.

S1; S67956; G544997; -.

S1; 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAN BIND HEPARIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KQKWVQ
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                                                                                                                                                                                                                                                                                                                       6
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35
AA;
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10900
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11025
  CHORDATA;
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MISSING: 83% REDUCTION II
D-A: 90% REDUCTION IN AV
N->A: 50% REDUCTION IN AV
R->F: 95% REDUCTION IN AV
S->Q: 40% REDUCTION IN AV
S->Q: 40% REDUCTION IN AV
Y->D: LOSS OF ACTIVITY.
R->L: LOSS OF ACTIVITY.
D->L: 90% REDUCTION IN AV
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Pred. No. 4.26e+00;
0; Mismatches C
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Pred. No. 4.26e+00;
0; M1smatches 0;
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BY SIMILARITY.
BY SIMILARITY.
9BA2CD26 CRC32;
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VERTEBRATA;
                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERTEBRATA; TETRAPODA; MAMMALIA;
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TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 99;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROTEIN 2.
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N IN ACTIVITY.
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                                                                             (MCP-1) (ACIDIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
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Best Local Similarity
Matches 6; Conser
                                                                                                                                                                                                MCP1_PIG STAN
P42831;
01-NOV-1995 (REL. 3
01-NOV-1995 (REL. 3
15-JUL-1998 (REL. 3
                                                                                                                                                                                                                                                                                                                                                         DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BIOCHEM.
-!- SUBUNIT: MONOMER OR HOW-!- SIMILARITY: BELONGS TO C-C) (CHEMOKINE CC).
EMBL; Z48479; G683717; -.
                                   SUBMITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA
-I- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS
NEUTROPHILS.
                                                                                                      SEQUENCE FROM N.A.
MEDLINE; 94183284.
HOSANG K., KNOKE I., K
BIOCHEM. BIOPHYS. RES.
                                                                                                                                                    SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHO
EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                        01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                PIR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; L32659; G624394; -. EMBL; M84602; G163395; -.
                                                                                                                                                                                                                                                                                                                                                                                                         CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                              HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NEUTROPHILS.
-!- SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
MEDLINE; 94338337.
WEMPE F., KUHLMANN J.K
BIOCHEM. BIOPHYS. RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE; 92096117.
WEMPE F., HENSCHEN A., SCHEIT K.H.;
DNA CELL BIOL. 10:671-679(1991).
                                                                TISSUE-BRAIN;
ZACH O.R.F.;
                                                                                                                                                                                   SCYA2
                                                                                                                                                                                                                                                                                                                                                                                               MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                  SIGNAL
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                                                                                    SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -!- FUNCTION: CHEMOTACTIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WEDLINE; 92181448
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JC2336; JC2336.
                                                                                                                                                                                                                                                                                KQKWVQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KUHLMANN J.K.,
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                                                                                                                                                                                                                                          STANDARD;
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                                                                                                                                                                                                                                                                                                                                                          11114 MW;
                                                                                                                                                              CHORDATA;
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75
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                                                                                                      KLAUDINY J., WEMPE F., WUTTKE W., S. COMMUN. 199:962-968(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                            SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ., SCHEIT K.H.;
COMMUN. 202:1272-1279(1994).
TIC FACTOR THAT ATTRACTS MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ., SCHEIT K.H.;
COMMUN. 183:232-237(1992).
                   HOMODIMER; IN EQUILIBRIUM (BY TO THE INTERCRINE BETA FAMILY
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                                                                                                                                                                                                                                                                                                                                                        BY SIMILARITY.

MONOCYTE CHEMOTACTIC PROTEIN 1A.
PYRROLIDONE CARBOXYLIC ACID (BY
SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                    Score
Pred.
0; M
                                                                                                                                                                                                                                          PRT;
                                                                                                                                                              VERTEBRATA; TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INTERCRINE BETA FAMILY
                                                                                                                                                                                                                                                                                                                      Mismatches
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                                              MONOCYTES,
                                                                                                                                                                                                                                                                                                                     Indels
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                                                                                                                                                               MAMMALIA;
                   (SMALL
                            SIMILARITY)
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                                                                                                                SCHEIT K.H.;
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                   CYTOKINE
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Best Local :
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Best Local
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                                                                                                                                                                                                                                                                        DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KUMAR A.G., BALLANTYNE C.M., MICHAEL L.H., KUKIELKA G.L., YOUKER K.P.
LINDSEY M.L., HAWKINS H.K., BIRDSALL H.H., MACKAY C.R., LAROSA G.J.,
ROSSEN R.D., SMITH C.W., ENTMAN M.L.;
CIRCULATION 95:693-700(1997).

-I- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY
REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYCCARDIUM.
MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL
CHAIN
MOD_RES
MCP1_RABIT
                                                                                                                                                                                                                                                                                                                                                               SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                REPERFUSED MYOCARDIUM.

-:- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).

-:- INDUCTION: BY TWY-ALPHA.

-:- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAI

-:- VEINS, AND INFILTRATING LEUKOCYTES.

-:- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE

-:- CC) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SCYA2 OR MCP1.
CANIS FAMILIARIS (DOG).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-UUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MCP1
                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                         MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EUTHERIA; CARNIVORA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHEMOATTRACTANT PROTEIN-1).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A
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                                                                                                                           79 KQKWVQ 84
                                                                                                                                                                   Match 100.0%;
Local Similarity 100.0%;
les 6; Conservative
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                                                                                      KOKWVQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     U29653;
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                                                                                                                                                                                                                                                                                                                                                                                                                            PS00472;
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35
AA;
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35
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                                                                                                                                                                                                                                                         AA;
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XIS; SIGNAL; INFLAMMATORY RESPONSE.

XIS; SIGNAL; INFLAMITY.

BY SIMILARITY.

99 MONOCYTE CHEMOTACTIC PROTEIN 1.

99 PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                            SMALL_CYTOKINES_CC;
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75
11121
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75
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Pred.
0; M
                                                                                                                                                                     Pred.
0; 1
                                                                                                                                                                                                           Score 53; DB 1;
                                                                                                                                                                                                                                                                                                                  ; INFLAMMATORY RESPONSE.
BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 1.
PYRROLLDONE CARBOXYLIC ACID (BY
SIMILARITY).
                                                                                                                                                                                                                                                                           BY SIMILARITY.
BY SIMILARITY.
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ECC3AFB4 CRC32;
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PRT;
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1. No. 4.26e+00;
Mismatches 0;
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125
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A
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Best Local s
Matches
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099616;
15-JUL-1998 (REL. 36, CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISULFID DISULFID
                                                                                                                                                                                                                          GARCIA-ZEPEDA E.A., COMBADIERE C., LAVIGNE F., HAMID Q., MURPHY P.M., J. IMMUNOL. 157:5613-5626(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C.C.) (CHEMOKINE CC.).
C.C.) (CHEMOKINE CC.).
EMBL; M57440; G165470; -.
HSSP; P13500; 1MCA.
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P28292;
01-DEC-1992 (REL. 24, CREATED)
01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
                                                              UGUCCIONI M., LOETSCHER P., FORS
LI Y., KREIDER B., GAROTTA G., T
J. EXP. MED. 183:2379-2384(1996)
                                                                                                                                                                                                                                                                                                                                                                                   HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    CHEMOATTRACTANT PROTEIN 4) (CK-BETA10) (NCC-1). SCYA13 OR MCP4 OR NCC1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORYCTOLAGUS CUNICULUS (RABBIT).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                         SEQUENCE FROM N.A.,
                                                                                                                                                                              SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                             MEDLINE; 97113354.
                                                                                                                                                                                                                                                                                                                    TISSUE-HEART;
                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YOSHIMURA T., YUHKI N.;
J. IMMUNOL. 146:3483-3488(1991).
-i- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN-NEW ZEALAND WHITE; MEDLINE; 91225489.
    TISSUE=FETAL;
                                                                                                                                                           TISSUE-FETAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOD_RES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YTOKINE;
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Similarity 100.0%;
                                                                                                                                      96235049
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                           SEQUENCE OF
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                                                                                        FORSSMANN U., DEWALD B., G., THELEN M., BAGGIOLINI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 53; DB 1; I
Pred. No. 4.26e+00;
0; Mismatches 0
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BY SIMILARITY.
BY SIMILARITY.
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MONOCYTE CHEMOTACTIC PROTEIN 1.
                                                                                                                                                                                                                                                                                                                                                                                                        VERTEBRATA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFLAMMATORY RESPONSE; GLYCOPROTEIN
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                                                                                                                                                                                                                                               ROTHENBERG M
LUSTER A.D.;
                                                                                                                                                                                  17-98
                                                                                                                                                                                                                                                                                                                                                                                                          TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                    М.Е.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 125;
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                                                                                          M.;
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TRESULT ACCORDER OF THE SULT A
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RI SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.

CC :- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,

CC :- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,

CC :- RESOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH

CC CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF

CC CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF

CC MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL

CC MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL

CC MAY BE INVOLVED IN THE FACENCIAN OF ARTHEROSCIEROSIS. MAY PLAY A

CC MAY BE INVOLVED ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO

CC ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO

CC EXOGENOUS PATHOGENS.

CC -!- MASS SPECTROMETRY: MW-8750; MM_ERR-30; METHOD-MALDI; RANGE-22-98.

CC -!- MASS SPECTROMETRY: MW-8750; MM_ERR-30; METHOD-MALDI; RANGE-24-98.

CC -!- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.

CC -!- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches
MORSEY M.A., POPOWYCH 1., CAMPOS M., BABIUK L.A.;
CAMPOS M., BABIUK L.A.;
MICROB. PATHOG. 20:203-212(1996).

FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT
-!- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. I
                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1997
01-NOV-1997
01-NOV-1997
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DISULFID
DISULFID
CARBOHYD
                                                                                                                                                                                 SEQUENCE FROM N.A. MEDLINE: 96304552.
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CHAIN
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BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOURBAGY N., APPELBAUM E., REAPE T.J., BRAWNER M., MAKWANA J., FOLEY J.J., SCHMIDT D.B., IMBURGIA C., MACNULTY D., MATTHEWS J., O'DONNELL K., O'SHANNESSY D., SCOTT M., GROOT P.H.E., MACPHEE C.; J. BIOL. CHEM. 272:16404-16413(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                Ol-NOV-1997 (REL. 35, CREATED)
Ol-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
Ol-NOV-1997 (REL. 35, LAST ANNOTATION UPDAT
INTERLEUKIN-8 PRECURSOR (IL-8).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CYTOKINE;
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                                                                                                                                                                                                                                                               EUTHERIA;
                                                                                                                                                                                                                                                                                          EUKARYOTA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   78 KEKWVQ 83
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE, THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS SEEN IN THE POLLONARY ARTERY SMOOTH MUSCLE CELLS.

THIS PROTEIN CAN BIND HEPARIN.

PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND (FUNGGLA)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE.

(LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.

SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                TAURUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BOVIN
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5; Conser
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5767; G1732123; -.
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METAZOA; CHORDATA;
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Pred. No.
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BY SIMILARITY.
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GLYCOPROTEIN; INFLAMMATORY RESPONSE
                                                                                                                                                                                                                                                                                        VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
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2.02e+01;
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                          FROM SEVERAL
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                        PATTRACTS NEUTROPHILS, IT IS ALSO INVOLVED IN SEVERAL CELL TYPES IN
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                                                                                                                                                         GODSON
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PIT COLUMN N N S S COLUMN S CO
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Best Local Similarity
5; Conserv
                                                                                                                                                                                           -!- SUBUNIT: HOMODIMER.
-!- SIMILARITY: BELONGS TO THE C-X-C) (CHEMOKINE CXC).
EMBL; D18772; G517100; -.
EMBL; D14285; G475152; -.
EMBL; U10308; G607814; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IL8_CANFA
P41324;
01-FEB-1995
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DISULFID
SEQUENCE
        CHAIN
DISULFID
DISULFID
SEQUENCE
                                                                                                                SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                    KUKIELKA G.L., SMITH W.C., LAROSA G.J., MANNING A.M., MENDOZA L.H., DALY T.J., HUGHES B.J., YOUKER K.A., HAWKINS H.K., MICHAEL L.H., ROT A., ENTWAN M.L.;

J. CLIN. INVEST. 95:89-103(1994).

-!- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHIL BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED NEUTROPHIL, ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MATSUMOTO Y., MOHAMED A., GOITSUKA R., TSUJIMOTO H., ISHIKAWA J., HOTTA K., SUICYTOKINE 6:455-461(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-FEB-1995
01-NOV-1995
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                                                                                                                                               CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
MEDLINE; 94010328.
ISHIKAWA J., SUZUKI S.,
GENE 131:305-306(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CANIS FAMILIARIS (DOG).
EUKARYOTA; METAZOA; CHORDATA;
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                                                                                                                                                                           PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN-MONGREL;
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MEDLINE; 95127913.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EUTHERIA;
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SUBUNIT: HOMODIMER (BY SIMILARITY).
SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SIC-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                              RESPONSE TO AN INFLAMMATORY
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                                                                                                                                            PS00471; SMALL_CYTOKINES_CXC; 1.; CHEMOTAXIS; INFLAMMATORY RESPONSE;
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(REL. 31, LAST SEQUENCE UF
(REL. 32, LAST ANNOTATION
-8 PRECURSOR (IL-8).
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              Ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-JUGULAR VEIN;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUZUKI K.,
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, HASEGAWA A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Œ;
              MW;
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Pred. No.
1; Misma
        BY SIMILARITY.
INTERLEUKIN-8.
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7C49D62D CRC:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HIROTA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2.02e+01
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 1;
              CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    У.,
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                                                                                                                                                                                                                                                                                                            ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ALPHA FAMILY (SMALL CYTOKINE
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                                                                                                                                                 SIGNAL
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SO INVOLVED IN
CELL TYPES IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUZUKI K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
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Query Match

92.5%;

Score

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Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 5; Conse
                                                                                                                                                                                   IL8_SHEEP
P36925;
01-JUN-1994
01-JUN-1994
01-NOV-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID DISULFID CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EUKARYOTA;
EUTHERIA; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P19874;

01-FEB-1991 (REL. 17, CREATED)

01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)

01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)

INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT/ACTIVATION PROTEIN-1) (NAP-1) (PERMEABILITY FACTOR 1) (RPF1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIGNAL
CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BEAUBIEN B.C., COLLINS P.D., JOSE P.J., TOTTY N.F., HSUAN J.,
WILLIAMS T.J.;
WICHEM, J. 271:797-801(1990).
-!- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION: IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
-!- SUBUNIT: HOMODIMER.
-!- SUBUNIT: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                      EUTHERIA;
                                                         OVIS ARIES (SHEEP).
EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PIR; S13052; S13052.
HSSP; P10145; 3IL8.
PROSITE; PS00471; SM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN-NEW ZEALAND MEDLINE; 91058518.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE OF 23-53.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE; 91225489.
YOSHIMURA T., YUHKI N.;
J. IMMUNOL. 146:3483-3488(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
STRAIN-NEW ZEALAND WHITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORYCTOLAGUS
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                                                                                                                                                            INTERLEUKIN-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity 83.3%; nes 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      81 KEKWVQ 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                81 KEKWVQ 86
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KQKWVQ 6
                                                                                                                                                                                                                                                                                                                                                                                                                                         KOKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -X-C) (CHEMOKINE CXC).
M57439; G165553; -.
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                                   ARTIODACTYLA.
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METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                            PRECURSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA;
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                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                29, CREATED)
29, LAST SEQUENCE UPDATE)
32, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SMALL_CYTOKINES_CXC; 1.
KIS; INFLAMMATORY RESPONSE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92.5%;
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                                                            CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (RABBIT).
"^"PNATA; VERTEBRATA;
                                                                                                                                                         (IL-8).
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BY SIMILARITY.
BY SIMILARITY.
K -> I (IN REF.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -> I (IN REF. 2 CB32CC30 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            e 49; DB 1; Ler
. No. 2.02e+01;
Mismatches 0;
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                                                                                                                                                                                                                                                                                                                101
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
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RESULT IN THE SOLUTION OF THE 
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Best Local S
Matches
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MEDLINE; 95121931.
LECASTELOIS I., GREENLAN.
GENE 150:367-369(1994).
[2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JLT 12

IL8_PIG STAN

P26894; P22951;

O1-AUG-1991 (REL. 1

O1-AUG-1992 (REL. 2

O1-OCT-1996 (REL. 3
                                                       REVISION TO 23.
GOODMAN R.B.;
SUBMITTED (MAR-1
[5]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE;
                                                                                                                                                                                 GOODMAN R.B., FOSTER D.C., MATHEW FORSTROM J.W., MARTIN T.R.; BIOCHEMISTRY 31:10483-10490(1992)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. MEDLINE; 94103307.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C-X-C) (CHEMOKINE CXC).
EMBL; X78306; G463254; -.
EMBL; S74436; G786591; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WEISS D.J., MURTAUGH M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUS SCROFA (PIG).
EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1. CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HSSP;
  STRAIN-YORKSHIRE;
                           SEQUENCE OF 26-45
                                                                                                                                                                                                                                                                       TISSUE-LUNG;
MEDLINE; 930
                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                SUBMITTED
                                                                                                                                                                                                                                                                                                                                                                                                         SANJANWALA
                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       J. BIOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INTERLEUKIN-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PIR; S42496; S42496.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -!- SUBUNIT: HOMODIMER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P10145;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 h 92.5%;
Similarity 83.3%;
5; Conservative
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PS00471; 9
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                                                                                (MAR-1996)
                                                                                                                                                                                                                                                                                                                                                                                (JUL-1991)
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36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REL. 19, CREATED)
REL. 23, LAST SEQUENCE UPDATE)
REL. 34, LAST ANNOTATION UPDATE)
PRECURSOR (IL-8) (ALVEOLAR MACROPHAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       269:77-85(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GREENLAND T.,
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101
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                                                                                   EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                                                            SEQUENCE
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                                                                                                                                                                                                                                              MATHEWES
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BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R.W.,
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1. No. 2.02e+01;
Mismatches 0;
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                                                                                                                                                                                                                                           S.L.,
                                                                                                                                                                                                                                                                                                                            26-45.
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                                                                                   DATA
                                                                                                                                                                                                                                              OSBORN
                                                                                                                                                                                                                                                                                                                                                                                DATA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TETRAPODA;
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                                                                                                                                                                                                                                           S.G.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MAMMALIA;
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                                                                                                                                                                                                                                              KUIJPER J.L.,
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Best Local S
Matches
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EMBL; M86923; G164521; -.

EMBL; X61151; G516197; -.

EMBL; M99367; G1235612; -.

PIR; A44253; A44253.

PIR; A39819; A39819.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CYTOKINE; CHEMOTAXIS;
SIGNAL 1 25
CHAIN 26 103
DISULFID 34 61
DISULFID 36 77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P75185;
01-NOV-1997
01-NOV-1997
01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GODDMAN R.B., FORSTROM J.W., OSBORN S.G., CHI E.Y., MARTIN T.R.;

J. BIOL. CHEM. 266:8455-8463(1991).

-!- FUNCTION: IL-8 IS A CHEMCTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,

BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN

NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN

RESPONSE TO AN INFLAMMATORY STIMULUS.

-!- TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.

-!- TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.

-!- TISSUE SPECIFICITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                 TRANSMEM TRANSMEM
                                                                                                                                                          PROSITE; P: TRANSPORT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CONFLICT
                      TRANSMEM
TRANSMEM
                                                         TRANSMEM
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
STRAIN-ATCC 29342 / M129;
MEDLINE; 97105885.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MYCOPLASMA PNEUMONIAE
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                                                                                                                                                                                                                                                                                                                                                          NUCLEIC ACIDS RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MYCOPLASMATACEAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROKARYOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PHOSPHATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ISSP; P10145;
                                                                                                                                                                                                                                                                                                                                                                                 IERRMANN R.
                                                                                                                                                                                                                                                                                                                                                                                               HIMMELREICH R., HILBERT H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity les 5; Conse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   81 KEKWVQ 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \vdash
                                                                                                                                                                                                                                     FUNCTION: COULD BE PART OF À BINDING-PROTEIN-DEPENDENT TRANSPORT SYSTEM FOR PHOSPHATE; PROBABLY RESPONSIBLE FOR THE TRANSLOCATION OF THE SUBSTRATE ACROSS THE MEMBRANE BY SIMILARITY.
SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN (POTENTIAL).
SIMILARITY: WITH INTEGRAL MEMBRANE COMPONENTS OF OTHER BINDING-PROTEIN DEPENDENT TRANSPORT SYSTEMS. BELONGS TO THE CYSTW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>٦</u>
                                                                                                                                                                                                                      SUBFAMILY
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KQKWVQ 6
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0145, 3118.
PS00471; SMALL_CYTOKINES_CXC; 1.
PS00471; INFLAMMATORY RESPONSE;
                                                                                                                                                                               PS00402;
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                                                                                                                                                            PHOSPHATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (REL. 35, CREATED)
(REL. 35, LAST SEQUENCE UPDATE)
(REL. 35, LAST ANNOTATION UPDAT
RANSPORT SYSTEM PERMEASE PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TENERICUTES;
    22
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107
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127
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163
388
437
471
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83.3%;
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                                                                                                                                                              TRANSPORT;
                                                                                                                                                                                 RANSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLLICUTES; MYCOPLASMA; MYCOPLASMATALES;
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BY SIMILARITY.
RC -> CR (IN REF.
K -> KK (IN REF. 2
                                                                                                                                                                                                                                                                                                                                                                                                 PLAGENS H.,
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RT; TRANSMEMBRANE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ON UPDATE)
PROTEIN PSTA HOMOLOG
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                                                                                                                                                                                                                                                                                                                                                                                                 PIRKL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 103;
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                                                                                                                                                                                                                                                                                                                                                                                                 B.-C.,
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Best Local S
Matches
                    Query Match
Best Local S
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-JUN-1994 (REL. : 01-OCT-1996 (REL. : 15-JUL-1998 (REL. : EOTAXIN PRECURSOR (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TRANSMEM
TRANSMEM
SEQUENCE
                                                              DISULFID
DISULFID
CARBOHYD
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EOTA_CAVPO
P80325;
                                                                                                                                                                      C-C) (CHEMOKINE CC).
EMBL; U18941; G687656; -.
EMBL; X77603; G602552; -.
HSSP; P13500; 1MCA.
                                                                                                                   CHAIN
                                                                                                                                                                                                                -!- SUBCELLULAR LOCATION: EXTRACELLULAR.
-!- TISSUE SPECIFICITY: LUNG.
-!- PTM: O-GLYCOSYLATED (PROBABLE).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                         JOSE P.J., GRIFFITHS-JOHNSON D.A., COLLINS P.D., WALSH D.T., MOQBEL R., TOTTY N.F., TRUONG O., HSUAN J.J., WILLIAMS T.J.; J. EXP. MED. 179:881-887(1994).

-i- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTE: DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
MEDLINE; 95091818.
JOSE P.J., ADCOCK I.M., GR.
WELLS T.C., WILLIAMS T.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE; 95173589.
ROTHENBERG M.E., L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAVIA PORCELLUS (GUINEA PIG).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                              SIGNAL
                                                                                                                                                  PROSITE; PS00472; SMALL_CYTOKINES_CC; EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLY
                                                                                                                                                                                                                                                                                                                         STRAIN-HARTLEY; T
MEDLINE; 94157409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EUTHERIA;
                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF 24-96
                                                                                                                                                                                                                                                                                                                                                                    BIOCHEM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                635
                                                                                                                                        INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
76 KKKWVQ 81
                                                                                                                                                                                                                                                                                                                                                                                                                                    THENBERG M.E., LUSTER A.D., LILLY C.M., DRAZEN J.M., LEDER EXP. MED. 181:1211-1216(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 KQKWVQ 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14
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                     Similarity 5; Conse
                                                                                                                                                                                                                                                                                                                                                                     BIOPHYS.
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613
651
                      Conservative
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                                                                                                                                                                                                                                                                                                                                                                     RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29, CREATED)
34, LAST SEQUENCE UPDATE)
36, LAST ANNOTATION UPDATE)
(EOSINOPHIL CHEMOTACTIC PROTEIN).
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633
72747
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10753
                               86.88;
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96
72
93
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                                                                                                                                                                                                                                                                                                                                                                               GRIFFITHS-JOHNSON D.A.,
J., POWER C.A.;
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                    Score 46;
Pred. No.
0; Misma
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Pred. No.
1; Misma
                                                                        EOTAXIN.
BY SIMILARITY.
BY SIMILARITY.
POTENTIAL.
D -> G (IN REF.
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POTENTIAL.
A480C49C
                                                              ) -> G (IN REF. DD28C7E5 CRC32;
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Mismatches 0;
                      Mismatches
                                                                                                                                                  _CC; 1.
GLYCOPROTEIN;
                               DB 1; L
6.15e+01;
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CC -!- SUBCELLULAR LOCATION: EXTRACELLULAR.

CC -!- PTM: O-GLYCOSYLATED (PROBABLE).

CC -!- INDUCTION: BY TNR-ALPHA, IL-1-ALPHA AND INTERFERON GAMMA.

CC -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE CC).

CC C-C) (CHEMOKINE CC).

DR EMBL: U34780; G1185440; -.

DR EMBL: 275668; E251275; -.

DR EMBL: 275669; E251288; -.

DR EMBL: 275669; E251275; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BIOCHEM.
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GENOMICS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE-LUNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GARCIA-ZEPEDA E.A., ROTHENBERG M. MORTON C.C., LUSTER A.D.; GENOMICS 41:471-476(1997).
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MEDLINE; 97312708.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BARTELS J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HEIN H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE; 97445071.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BARTELS J., SCHLUETER C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.,
TISSUE=FORESKIN;
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TIFFANY H.L., MURPHY P.M., YOSHIE O
J. BIOL. CHEM. 271:7725-7730(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MACKAY C.R.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE; 96181758.
GARCIA-ZEPEDA E.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EUKARYOTA; METAZOA;
EUTHERIA; PRIMATES.
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PS00472; SMALL_CYTOKINES_CC; IL; CYTOKINE; CHEMOTAXIS; GLY! FORY RESPONSE; POLYMORPHISM.
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96205964.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SCHLUETER C.,
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SHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAMOS J.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2:449-456(1996).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KULKE R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMUN. 225:1045-1051(1996).
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, YOSHIE O.;
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E
                         GLYCOPROTEIN;
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                         SIGNAL;
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Best Local Similarity
Matches 5; Conser
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Best Local Similarity
Matches 5; Conse
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DISULFID
SEQUENCE
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P48298;
01-FEB-1996
01-FEB-1996
15-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIGNAL
CHAIN
DISULFID
DISULFID
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                                                                                                                                                CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN-C57BL/6J; TISSUE-LUNG;
MEDLINE; 96158746.
GONZALO J.-A., JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A
JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND
GUTIERREZ-RAMOS J.-C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SCYA11.
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; C
                                                                                                                                                                                               PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
                                                                                                                                                                   SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROC. NATL. ACAD. SCI. U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EOTAXIN PRECURSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                     INFLAMMATORY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
77 KKKWVQ
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                                                                                                                 Y RESPONSE.

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                                Conservative
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33
79
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   33, CREATED)
33, LAST SEQUENCE UPDATE)
36, LAST ANNOTATION UPDATE)
(EOSINOPHIL CHEMOTACTIC PRO
                                                                                                10893
                                                86.8%;
83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     86.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10732
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                             Score 46; DB 1; I
Pred. No. 6.15e+01;
0; Mismatches 1
                                                                                             POTENTIAL.
EOTAXIN.
BY SIMILARITY.
BY SIMILARITY.
F85A96BC CRC32;
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Pred. No. 6.15e+01;
0; Mismatches 1
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EOTAXIN.
BY SIMILARITY.
BY SIMILARITY.
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92:8960-8964(1995).
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                                                            Length 97;
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Best Local S
Matches
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P97545; 0087780;
15-JUL-1998 (REL. 36, CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION PROTEIN).

EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).

RATTUS NORVEGICUS (RAT).

EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID DISULFID
                                                                                                                                                                                                                                                                                                                                                                           MCP2_PIG STANDARD; PRT; 99 AA. P49873; 01-CCT-1996 (REL. 34, CREATED) 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE) 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE) MONOCYTE CREMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) CHEMOATTRACTANT PROTEIN 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -i- PTM: O-GLYCOSYLATED (PROBABLE).
-i- SIMILARITY: BELONGS TO THE INTERCRINE
C-C) (CHEMOKINE CC).
EMBL; Y08358; E274141; -..
EMBL; U96637; G2098785; -..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
-I- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTE:
-I- EUNCLIV PROMOTES THE ACCUMILATION OF EOSINOPHILS, A PROMINENT
FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).
-I- SUBCELLULAR LOCATION: EXTRACELLULAR.
                                -!- FUNCTION: CHEMOTAC
                                                                                        MEDLINE; 95091716.
HOSANG K.K., KNOKE
SCHEIT K.K.;
                                                                                                                                                                                                                                                  EUTHERIA;
                                                                                                                                                                                                                                                                               SUS SCROFA (PIG)
EUKARYOTA; METAZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
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                                                                                                                                                                                       SEQUENCE
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                                                                                                                                                      95091716.
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C.M.,
B.F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PS00472; SMALL_CYTOKINES_
IL; CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                         ARTIODACTYLA.
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                                                                                                                                                                                                                                                                                   METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97
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943324
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                             CHEMOTACTIC
                                                                                                                         Ι.Ι.,
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                                                                 COMMUN.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL/GENBANK/DDBJ
                                                                                                                         KLAUDINY J.J.,
                          FACTOR THAT ATTRACTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score
Pred.
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L -> S (IN REF.
05B4ED45 CRC32;
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BY SIMILARITY.
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                                                                                                                                                                                                                                                                                   VERTEBRATA; TETRAPODA;
                                                          205:148-153(1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      46;
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GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
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6.15e+01;
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                                                                                                                         WEMPE F.F.,
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                                MONOCYTES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                            (MONOCYTE
                                                                                                                         WUTTKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97;
                                                                                                                                                                                                                                                                                   MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        THIS PROTEIN
                                                                                                                         W.W.,
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Best Local S
Matches
        MEDLINE; 97263733.

MEDUNIER S., BERNASSAU J.-M., GUILLEMOT BIOCHEMISTRY 36:4412-4422(1997).

-1- FUNCTION: CHEMOTACTIC FACTOR THAT /-
EOSINOPHILS, BUT NOT NEUTROPHILS. /-
ACCUTATION: ALSO INDUCES THE RELEASE
                                                                                     FEBS LETT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; Z48
PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                    MCP3_HUMAN STANDARD; PRT; 99 AA. P80098; 01-DEC-1992 (REL. 24, CREATED) 01-NOY-1995 (REL. 32, LAST SEQUENCE UPDATE) 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE) MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3)
                                                                                                                                    VAN DAMME J., PROOST P., LENA
J. EXP. MED. 176:59-65(1992).
                                                                                                                                                                                                     MINTY A., CHALON P., GUILLEMOT J.
MAGAZIN M., MILOUX B., MINTY C.,
SHIRE D., FERRARA P., CAPUT D.;
                                                                                                                                                                                                                         SEQUENCE FROM N.A. MEDLINE; 93305913. MINTY A., CHALON P.,
                                                                                                                                                                                                                                                              OPDENAKKER G., FITEN P., N
LAUREYS G., VAN DAMME J.;
GENOMICS 21:403-408(1994).
                                                                                                                                                                                                                                                                                                                           BIOCHEM.
                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A., MEDLINE; 93213290.
OPDENAKKER G., FROYI
                                                                                                                                                                                                                                                                                                                                                                        HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; C
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                    CHEMOATTRACTANT PROTEIN 3) (NC28). SCYA7 OR MCP3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIGNAL
                                                          STRUCTURE BY NMR. MEDLINE; 97263733
                                                                                                         STRUCTURE BY NMR, MEDLINE; 97053697
                                                                                                                                              MEDLINE; 92308855
                                                                                                                                                                TISSUE-OSTEOSARCOMA;
                                                                                                                                                                           SEQUENCE OF 30-99
                                                                                                                                                                                             EUR. CYTOKINE
                                                                                                                                                                                                                                                                                                      SEQUENCE
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SIMILARITY: BELONGS T
C-C) (CHEMOKINE CC).
L; Z48480; G683719; -.
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BIND HEPARIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                           FROM N.A.
94375065.
                                                                                                                                                                                                                                                                                                                         BIOPHYS.
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                                                                                     RAJARATHNAM K., CL
395:277-282(1996).
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                                                                                                                                                                                             NETW. 4:99-110(1993).
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                                                                                                                                                                                                                                                                                                                                   FROYEN
                                                                                                                                                                                                                                                                                                                           RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SMALL_CYTOKINES_CC;
                                                                                                                  AND
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                                                                                                                                                                                                                                                                                                                                                                                 CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                               N G., E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   59
75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIGNAL; HEPARIN-BINDING;
3 BY SIMILARITY.
                                                                                                                   SUBUNIT.
                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY) TO THE INTERCRINE BETA FAMILY (SMALL CYTOL
                                                                                                                                                                                                                                                                                   SYN
                                                                                                                                               LENAERTS
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                                                                                                                                                                                                                                                                                                                                   FITEN
                                                                                               CLARK-LEWIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 46;
Pred. No.
0; Misma
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BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MONOCYTE
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                                                                                                                                                                                                                                                                                                                         N P., PROOST P., V
191:535-542(1993)
                                                                                                                                                                                                                .C., KAGHAD M., I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                    FROYEN
                                                                                                                                              J.-P.,
                                                                                                                                                                                                                                                                                                                                                      31-67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 1; Leny
. 6.15e+01;
          ATTRACTS MONOCYTES AUGMENTS MONOCYTE & E OF GELATINASE B. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHEMOTACTIC PROTEIN
                                                J.-C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CRC32;
                                                                                               Ι.,
                                                                                                                                                                                                                                                                                  G.,
                                                                                                                                               OPDENAKKER
                                                                                                                                                                                                                                                                                                                                                      AND
                                                                                                                                                                                                                                                                                                                                                                                  TETRAPODA; MAMMALIA;
                                                                                               SYKES
                                                                                                                                                                                                                                                                                    VAN
                                                 FERRARA P.,
                                                                                                                                                                                                                                                                                                                                                      71-99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                   VAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFLAMMATORY RESPONSE
                                                                                                                                                                                                                LIAUZUN P.,
A N., LUPKER
                                                                                                                                                                                                                                                                                    ROY
                                                                                                                                                                                                                                                                                                                                                                                                                      (MONOCYTE
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                                                                                                                                                                                                                                                                                                                                    DAMME
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           ANTI-TUMOR
THIS PROTE
                                                                                                                                                                                                                                                                                    SPELEMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (BY
                                                 DARBON
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                                                                                                                                                                                                                J.,
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RESULTATION OF THE STATE OF THE
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   Query Match
Best Local s
Matches
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Best Local
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-!- SIMILARTY: BELLONGS TO THE INTERC C-C) (CHEMOKINE CC).

EMBL; X72308; G313708; ALT_INIT.
EMBL; X72309; -; NOT_ANNOTATED_CDS.
EMBL; X71087; G288399; ALT_INIT.
EMBL; X71087; G288399; ALT_INIT.
EMBL; X71087; G288397; ALT_INIT.
EMBL; X71087; G288397; ALT_INIT.
PIR; JC1478; JC1478.
PIR; S32222; S32222.
PIR; S32222; S32222.
                                                                                                                     CHAIN
DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-FEB-1996 (REL. 3
01-FEB-1996 (REL. 3
01-OCT-1996 (REL. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P49113;
01-FEB-1996
01-FEB-1996
01-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CHAIN
MOD_RES
                                                                                                                                                                                                                                                                                                  YOSHIMURA T., JOHNSON D.G.;

J. IMMUNOL. 151:6225-6236(1993).

-!- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,

BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN

NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN

RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).

-!- SUBUNIT: HOMODIMER (BY SIMILARITY)

-!- SUBUNIT: HOMODIMER (BY SIMILARITY)

-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE

C-X-C) (CHEMOKINE CXC).

EMBL; L04986; G459765; -.

PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE; F
                                                                                                                                                                                                                                                SIGNAL
                                                                                                                                                                                                                                                                            CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
TISSUE-SPLEEN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAVIA PORCELLUS (GUINEA PIG).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IL8_CAVPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     80 QKWVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    86.8%;
Local Similarity 100.0%;
es 5; Conservation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 QKWVQ 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBUNIT:
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                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        94065176.
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                                                                                                                                                 PS00471; SMALL_CYTOKINES_CXC; 1.
CHEMOTAXIS; INFLAMMATORY RESPONSE;
1 22 INFLAMMATORY RESPONSE;
1 23 INFLAMMATORY INTERLEUKIN-8.
34 61 BY SIMILARITY.
36 77 BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA;
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34,
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                               86.8%;
                                                                                                                        11414 MW;
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            M.
Score 46;
Pred. No.
0; Misma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 46;
Pred. No.
0; Misma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MISSING (IN REF. 4).
7502E19C CRC32;
                                                                                                                 INTERLEUKIN-8.
BY SIMILARITY.
BY SIMILARITY.
7; E13FB521 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BY SIMILARITY.
BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VERTEBRATA;
   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                               DB 1; L
6.15e+01;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 1; 1
6.15e+01
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                         SIGNAL
                                                        Length 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
Indels
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Best Local
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                                                                                                                                                                                        EL1_BOVIN
Q28153;
Q1-NOV-1997
                                                                                                                                                                                                                                                                                                                                   DISULFID
DISULFID
CARBOHYD
SEQUENCE
      GESTIN M., LE HUEROU-LURON I., WICKER-PLANQUART CHAIX J.C., PUIGSERVER A., GUILLOTEAU P.;
COMP. BIOCHEM. PHYSIOL. 118B:181-187(1997).
-!- CATALYTIC ACTIVITY: HYDROLYSIS OF PROTEINS,
PREFERENTIAL CLEAVAGE: ALA-|-XAA.
-!- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S1;
TRYPSIN FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MCP1_CAVPO
Q08782;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-UUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
                                                                                                                    ELA1.
BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                      01-NOV-1997
15-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
STRAIN=Z; TISSUE=SPLEEN;
MEDLINE; 93267104.
                                                                            STRAIN-HOLSTEIN-FRIESIAN; MEDLINE; 98079203.
                                                                                                 SEQUENCE FROM N.A
                                                                                                                                                            ELASTASE 1 PRECURSOR
                                                                                                                                                                                                                                                                                                                                                                                     MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                        SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                              NEUTROPHILS.
-!- SUBUNIT: MONOMER OR
-!- SIMILARITY: BELONGS
C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -!- FUNCTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAVIA PORCELLUS (GUINEA PIG).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SCYA2 OR MCP1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHEMOATTRACTANT PROTEIN-1).
                                                                                                                                                                                                                                                                                                                                                                                               CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YOSHIMURA T.
                                                                                                                                                                                                                                                                 78 QKWVQ 82
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                                                                                                                                                                                                                                                                                                     Local
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                                                                                                                                                                                                                                                      QKWVQ 6
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                                                                                                                                                                                                                                                                                                                                                                                                                           L04985; G349821;
TE; PS00472; SMAL
                                                                                                                                                                                                                                                                                                    h 86.8%;
Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                  CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                  33
34
97
120
                                                                                                                                                                    (REL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    150:5025-5032(1993).
N: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        86
                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                    AA;
                                                                                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                          . 35, CREATED)
. 35, LAST SEQUENCE UPI
. 36, LAST ANNOTATION (
RSOR (EC 3.4.21.36).
                                                                                                                                                                                                                                                                                                                                                                                                                            SMALL_CYTOKINES_CC;
                                                                                                                                                                                                                                                                                                                                                                                   23
120
24
                                                                                                                                                                                                                                                                                                                                                                                                                                    . cc)
                                                                                                                                                                                                                                                                                                                                    13741
                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         HOMODIMER;
                                                                                      TISSUE-PANCREAS
                                                                                                                                                                                                                                                                                                                                    MW;
                                                                                                                                                                                                                                                                                                                                                                          YOKINES_CC; 1.

LIFTLANMATORY RESPONSE; GLYCOP

BY SIMILARITY.

MONOCYTE CHEMOTACTIC PROTEIN 1

PYRROLIDONE CARBOXYLIC ACID (B

SIMILARITY).
                                                                                                                                                                                                                                                                                            Pred.
                                                                                                                                                                                                                                                                                                     Score 46; DB 1; 1
Pred. No. 6.15e+01
                                                                                                                                                                                                                                                                                                                                                       BY SIMILARITY.
BY SIMILARITY.
                                                                                                                              VERTEBRATA; TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       MER; IN EQUILIBRIUM (BY INTERCRINE BETA FAMILY
                                                                                                                                                                                                                                                                                                                                    22FAD257 CRC32;
                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                    ON UPDATE)
                                                                                                                                                                                                            266
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                                                                                                                                                                                                                                                                                                                                                                                                                 RESPONSE; GLYCOPROTEIN.
                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                              Length 120;
                                                                  ი,
                 ALSO KNOWN AS
                                    INCLUDING
                                                                                                                                                                                                                                                                                            Indels
                                                                  Ε
                                                                                                                              MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY).
(SMALL CYTOKINE
                                                                  DREAN
                                                                                                                                                                                                                                                                                                                                                                                   (BY
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                                    ELASTIN
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Best Local S
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 86.8%;
Best Local Similarity 100.0%;
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YBOF_SCHPO
P87156;
15-JUL-1998 (
15-JUL-1998 (
15-JUL-1998 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROPEP
CHAIN
DISULFID
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DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DURSO G., LYE G., BOWMAN S., CHURCH C., WC RAJANDREAM M.A., CONNOR R.E.; SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ-I-SIMILARITY: TO YEAST YOLOZZC. EMBL; Z95397; E315887; -. HYPOTHETICAL PROTEIN. SEQUENCE 396 AA; 44276 MW; 9902417E CF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACT_SITE
ACT_SITE
ACT_SITE
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; POPROSITE; POPROSITE; POPROLASE; SIGNAL
SEQUENCE FROM N.A.
STRAIN=RD / KW20;
MEDLINE; 95350630,
FLEISCHMANN R.D., ADAMS M.D.,
KERLAVAGE A.R., BULT C.J., TO
                                                                                                                                HAEMOPHILUS INFLUENZAE. PROKARYOTA; GRACILICUTES;
                                                                                                                                                                                                                                                                YA54_HAEIN
P44104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-JUL-1998 (REL. 36, CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
HYPOTHETICAL 44.3 KD PROTEIN C25H2.15 IN CHROMOSOME
SPBC25H2.15.
SCHIZOSACCHAROMYCES POMBE (FISSION YEAST).
                                                                                                                                                                                         HYPOTHETICAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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                                                                                                                ASTEURELLACEAE.
                                                                                                                                                                                                       1-NOV-1995
1-NOV-1995
1-NOV-1995
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Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                             3 QKWVQ
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PS00135;
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(REL. 32, LAST SEQUENCE UPDATE)
(REL. 32, LAST ANNOTATION UPDATE)
L PROTEIN HI1054.
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TRYPSIN_SER;
PROTEASE; ZYM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MW;
                                                                                                                              SCOTOBACTERIA; FACULTATIVELY ANAEROBIC RODS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EYMOGEN: PANCREAS; SIC
BY SIMILARITY.
ACTIVATION PEPTIDE (1
ELASTASE 1.
BY SIMILARITY.
     HMOT
                                                                                                                                                                                                                                                                                                                                                                                                                             Score 46; DB 1; I
Pred. No. 6.15e+01;
0; Mismatches 0
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Pred. No. 6.15e+01
0; Mismatches (
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POTENTIAL.
   WHITE O.,
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                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9902417E CRC32;
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 DOUGHERTY B.A., MERRICK J.
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XX MEDITUE; 963799.

XX MEDITUE; 963799.

XX METTON G.G., BLAKE J.A., FITZGERALD L.M., CLAYTON R.A., GOCAYNE J.D., ADAMS M.D., REICH C.I., OVERBEEK R., KIRKNESS E.F., WEINSTOCK K.G., MERRICK J.M., GLODEK A., ADOVERNER, R., KIRKNESS E.F., WEINSTOCK K.G., MERRICK J.M., GLODEK A., ADOVERNEN, J.L., GOCHORN A., ADOVERNANN J.L., NGUYEN D., ADOVERNANN J.L., NGUYEN D., ADOVERNANN J.L., NGUYEN D., ADOVERNANN M.C., COTTON M.D., ROBERTS K.M., HURST M.A., KAINE B.P., BORODOVSKY M., ALLINE M.-P., FRASER C.M., SMITH H.O., WOESE C.R., VENTER J.C.;

XX MEDITUE; MOSSE 1073(1996).

XX MEDITUE; MOSSE 1073(1996).

XX MEDITUE; MOSSE 1073(1996).

XX MEDITUE; MOSSE 1073(1996).
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Best Local s
Matches
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Best Local Similarity 100.0%;
Matches 5; Conservative
                                                                                                                                         YCX2_YEAST STAN
P25649;
01_MAY-1992 (REL. 2
01-MAY-1992 (REL. 2
01_NOV-1995 (REL. 3
HYPOTHETICAL 15.1 K
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Q57969;
01-NOV-1997
01-NOV-1997
01-NOV-1997
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                                                                      SACCHAROMYCES CEREVISIAE (BAKER'S EUKARYOTA; FUNGI; ASCOMYCOTINA; HE
                                                                                                                        HYPOTHETICAL YCR82W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; U32786; G157461
TIGR; HI1054; -.
HYPOTHETICAL PROTEIN.
  FELDMANN H.,
                         SEQUENCE FROM N.A
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                                                                                                                                                                                                                                                                                                                                                         45 KHKWIH 50
|:||::
1 KQKWVQ 6
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3; Conser
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(REL.
(REL.
     MANNHAUPT
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(REL. 35, LAST SEQUENCE UF
(REL. 35, LAST ANNOTATION
PROTEIN MJ0549.
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                                                                                                                                                                                                                                                                  STANDARD;
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                                                                                                                                         22, CREATED)
22, LAST SEQUENCE UPDATE)
32, LAST SEQUENCE UPDATE)
32, LAST ANNOTATION UPDATE)
KD PROTEIN IN SRB8-TUP1 INTERGENIC
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3; Misma
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Pred. No.
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                                                                           HEMIASCOMYCETES
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[2]
SEQUENCE FROM N.A.
MFDLINE; 87224164.
                                                                                                                                                                                                                                                                                                                                                                                                                        ILB_HUMAN STANDARD; PRT; 99 AA.

P10145;
01-MAR-1989 (REL. 10, CREATED)
01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
15-JUL-1998 (REL. 10, LAST SEQUENCE FRACTOR) (NEUTROPHIL-
CHEMOTACTIC FACTOR) (MDNCF) (T-CELL CHEMOTACTIC FACTOR) (NEUTROPHIL-
ACTIVATING FROTEIN 1) (NAP-1) (LYMAP-1) (LYMAP-1) (NEUTROPHIL-
ACTIVATING FACTOR) (LYNAP) (PROTEIN 3-10C) (NEUTROPHIL-
ACTIVATING FACTOR) (LYNAP) (PROTEIN 3-10C) (NEUTROPHIL-
ACTIVATING FACTOR) (GRANULOCYTE CHEMOTACTIC PROTEIN 1) (GCP-1) (EMOCTAKIN).
                                                                                   MEDLINE; 88258376.
MATSUSHIMA K., MORISHITA K., YOSHIMURA T.,
LEW W., APPELLA E., KUNG H., LEONARD E.J.,
J. EXP. MED. 167:1883-1893(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUBMITTED (MAR-1992) TO EMBL/GENBANK/DDBJ DATA BANKS: EMBL; X59720; E264569; -...
PIR; S19497; S19497.
HYPOTHETICAL PROTEIN.
                                                                                                                                                                                                    SEQUENCE FROM N.A. MEDLINE; 88258376.
                                                                                                                                                                                                                                                                                                           EUTHERIA;
                                                                                                                                                                                                                                                                                                                                            EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                                                             HOMO SAPIENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-NCTC 418;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ENTEROBACTERIACEAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KLEBSIELLA PNEUMONIAE. PROKARYOTA; GRACILICUTES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COENZYME PQQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-AUG-1992
01-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P27505;
01-AUG-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PQQC_KLEPN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          74 RRKWVQ 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       88
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 KQKWI 92
||||:
| KQKWV 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KOKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
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                                                                                                                                                                                                                                                                                                           PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 128
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(REL.
                                                                                                                                                                                                                                                                                                                                                                          (HUMAN).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 83.0%;
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                                                                                                                                                                                                                                                                                                                                     CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15117
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SCOTOBACTERIA; FACULTATIVELY ANAEROBIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COENZYME PYRROLO-QUINOLINE-QUINONE (PQQ)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 44;
Pred. No.
2; Misma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 44;
Pred. No.
                                                                                                                                                                                                                                                                                                                                        VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    E5E75053 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 283D25D0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    44; DB 1; I
No. 1.26e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             251 AA
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1.26e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CRC32;
                                                                                                                                                                                                                                                                                                                                     TETRAPODA;
                                                                                                                                              LAVU S., K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       POSTMA P.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 128;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
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                                                                                                                                                                         KOBAYASHI Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     251;
                                                                                                                                           J.J.;
                                                                                                                                                                                                                                                                                                                                     MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>.</u>.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
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MEDLINE; 91110300.

BALDWIN E.T., WEBER I.T., S'
BALDAMA, MANSUSHIMA K., E
PROC. NATL. ACAD. SCI. U.S.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE; 892
GOLDS E.E., I
BIOCHEM. J.
                                                                                                                                          MEDLINE; 911
CLORE G.M.,
                                                                                                                                                                             MEDLINE; 90216714.
BALDWIN E.T., FRANKLIN K.A., APPELL MLODAWER A., WEBER I.T.;
J. BIOL. CHEM. 265:6851-6853(1990).
                                                                                                                                                                                                                             MEDLINE; 90234679.
CLORE G.M., APPELLA E., YAMADA M., MATSUSHIMA K.,
BIOCHEMISTRY 29:1689-1696(1990).
                MEDLINE; 91006326.

VAN DAMME J., RAMPART M., CONING R., WILLEMS J., BILLIAU A.;

EUR. J. IMMUNOL. 20:2113-2118(1990).
                                                                                                                                                                                                                                                                                    YOSHIMURA T., MATSUSHIMA K., OPPENHEIM J.J., LEONARD E.J. PROC. NATL. ACAD. SCI. U.S.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE OF 23-54.
MEDLINE; 89279141.
SUZUKI K., MIYASAKA
N-TERMINAL FORMS
                                                                                                                                                                                                                                                                                                                                                               MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                    GREGORY
                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 28-99
MEDLINE; 88162914
                                                                                                                                                                                                                                                                                                                                                                                                                                                MIZUNO S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE OF 23-46.
MEDLINE; 89246368.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SCHMID J.,
                                                        N-TERMINAL FORMS.
                                                                                                             X-RAY CRYSTALLOGRAPHY (1.6 ANGSTROMS),
                                                                                                                                                            X-RAY CRYSTALLOGRAPHY,
                                                                                                                                                                                                                    X-RAY CRYSTALLOGRAPHY (1.6 ANGSTROMS).
                                                                                                                                                                                                                                                                                                               SEQUENCE OF 28-69.
MEDLINE; 88097462.
                                                                                                                                                                                                                                                                                                                                            BIOCHEM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUBMITTED (JAN-1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MUKAIDA N.,
                                                                                                                                                                                                                                                                                                                                                                                         REGORY H., YOUNG
                                                                                                                                                                                                                                                        DLINE; 90234679
                                                                                                                                MOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IMMUNOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IMMUNOL.
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                                                                                                                                  BIOL.
                                                                                                                                                                                                                                                                                                                                                              E OF 28-59.
                                                                                                                                                                                                                                                                                                                                            BIOPHYS. RES.
                                                                                                                                                                                                                                                                                                                                                      PEVERI P.,
                                                                                                                                                   91171286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WEISSMANN C.;
. 139:250-256(1987).
                                                                                                                                GRONENBORN A.M.;
L. 217:611-620(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MASON P., NYIRKOS
259:585-588(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SHIROO M., MATSUSHIMA
143:1366-1371(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                       169:1895-1901(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DENHARDT D.T.;
[OL. 9:1946-1957(1989).
                                                                                                                                                                                          FRANKLIN K.A., APPELLA WEBER I.T.;
                                                                                                                                                                                                                                                                                                                                                                                         J.,
                                                                                                                                                                                                                                                                                     SCI. U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        н.,
                                                                                                                                                                                                                                                                                                                                                    ASCHAUER H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ō
                                                                                                                                                                                                                                                                                                                                                                                         SCHROEDER J.M., MROWIETZ U., COMMUN. 151:883-890(1988).
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                                                                                                                                                                                                                                                                                                                                             COMMUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         OTA H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL/GENBANK/DDBJ DATA BANKS
                                                                        ò
                                                                       ST CHARLES R., XUAN EDWARDS B.F., CLORE S.A. 88:502-506(1991)
                                   CONING R.,
                                                                                                                                                             STRUCTURE
                                                                                                                                                                                                                                                                                                      TANAKA S.,
                                                                                                                                                                                                                                                                                     84:9233-9237(1987).
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                                                                                                                                                                                                                                                                                                                                           ., BAGGIOLINI M.;
149:755-761(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                         YAMAKAWA
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H
                                                                                                                                                             ВУ
                                    DECOCK
                                                                                                              AND
                                                                                                                                                             NMR.
                                                                                                                                                                                                                                                                                                       ROBINSON
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                                                                                                                                                                                                 YAMADA
                                                                                                              STRUCTURE
                                   В.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAGAWA
                                                                               д.С.,
G.M.,
                                    VAN
                                                                                                                                                                                                 М.,
                                                                                                                                                                                                                                                                                                       E.A.,
                                                                                                                                                                                                                                               GRONENBORN
                                                                                                                                                                                                                                                                                                                                                                                                   CHRISTOPHERS
                                   OSSELAER N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
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                                                                                APPELLA E.,
GRONENBORN A.M.;
                                                                                                                                                                                                  MATSUSHIMA
                                                                                                              BY NMR
                                                                                                                                                                                                                                                                                                       APPELLA
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Best Local S
Matches
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EMBL; Y00787; G34519; -.

EMBL; M17017; G179580; -.

EMBL; M26383; G188628; -.

EMBL; M28130; G186368; -.

EMBL; D14283; G219916; -.

PIR; R37034; A37034.

PIR; S03975; S03975.

PIR; S03975; S04216.
SAA3_MOUSE S
P04918; Q62201;
13-AUG-1987 (REI
13-AUG-1987 (REI
01-NOV-1997 (REI
                                                                                                                                           DISULFID
DISULFID
CONFLICT
HELIX
STRAND
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TURN
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TURN
HELIX
                                                                                                                                                                                                                         CYTOKINE;
SIGNAL
                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                      TURN
                                                                                                                                                                                                                   CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE: 91175767.
CLARK-LEWIS I., MOSE B.,
AEBERSOLD R.;
                                                                                                                                                                                                                                                                                                                                                                                                                       BIOCHEMISTRY 30:3128-3135(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                 SYNTHESIS OF 28-99.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE; 89231715
VAN DAMME J., VAN
                                                                                                                                                                                                            PROPEP
                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                            REVIEW
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                                                                                   Local Similarity
                                                                81 KENWVQ 86
                                                    \vdash
                                                                                                                                                                                                                                                              3; 1IL8; 15-JAN-91.
3; 2IL8; 15-JAN-91.
3; 3IL8; 15-OCT-92.
3; 1ICW; 12-MAR-97.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             DAMME J., VAN BEEUMEN J., CONINGS R., J. BIOCHEM. 181:337-344(1989).
                                 29
                                                    KOKWVO
                                                                                                                                                                                                                               PS00471; SMALL_CYTOKINES_CXC; CHEMOTAXIS; INFLAMMATORY RES
                                                                                                                                                                                                                                                                                                                                                                                                     92347562
                                                                                                                                                                                                                                                   15-OCT-95
                                                                                                                                                                                                                                                         15-OCT-95
                                                                                                     (REL. 05, CREATED)
(REL. 05, LAST SEQUENCE UPDATE)
(REL. 35, LAST ANNOTATION UPDATE)
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                                                                             Conservative
                          STANDARD;
                                                                                  81.1%;
66.7%;
                                                                                                      11098 MW;
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                                                                           Score 43; DB 1; L
Pred. No. 1.78e+02;
2; Mismatches 0
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ONE OR MORE OF 'IN SOME MATURE
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                                                                                                     89D1891F CRC32;
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                                                                                                                                                                                                                                                                                                                                                ALPHA FAMILY (SMALL CYTOKINE
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OF IL-8.
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Best Local Similarity
Matches 4; Conser
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THESE DEPOSITS ARE HIGHLY INSOLUBLE AND RESISTANT TO PROTEOLYSIS;

-!- SIMILARITY: BELONGS TO THE SAA FAMILY.

EMBL; X03479; G817998; -.

EMBL; X03505; G762988; -.

EMBL; X03506; G762988; JOINED.

EMBL; X03507; G762988; JOINED.

EMBL; X03507; G762988; JOINED.

EMBL; M17792; G200919; -.

EMBL; M25467; G191930; -.

EMBL; M25467; G191930; -.

EMBL; M25467; G191930; -.

EMBL; M25467; G191930; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN-BALB/C; TISS MEDLINE; 82229376. STEARMAN R.S., LOWE ANN. N.Y. ACAD. SCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SAA3.

MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; C
EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHAIN
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE; 8625
LOWELL C.A.,
                                                                                                               PFIA_ECOLI STANDARD; PRT; 245 AA. P09374; 01-MAR-1989 (REL. 10, CREATED) 01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE) 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE) PYRUVATE FORMATE-LYASE 1 ACTIVATING ENZYME (E
                                               ESCHERICHIA COLI.
PROKARYOTA; GRACILICUTES;
                                                                                            PFLA OR ACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PIR; C23843; C23843.
MGD; MGI:98223; SAA3
PROSITE; PS00992; SA
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MEDLINE; 87309776.
YAMAMOTO K.I., GOTO N., KOSAKA J., SHIROO M., YEUL Y.D.,
J. IMMUNOL. 139:1683-1688(1987).
-i- FUNCTION: MAJOR ACUTE PHASE REACTANT. APOLIPOPROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 27-64 FROM N.A.
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NUCLEIC ACIDS RES.
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                            ENTEROBACTERIACEAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIGNAL
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INDUCTION: UPON CYTOKINE STIMULATION.
DISEASE: REACTIVE, SECONDARY AMYLOIDOSIS IS CHARACTERIZED BY
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122 AA; 13773 1
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                                               SCOTOBACTERIA; FACULTATIVELY ANAEROBIC RODS;
                                                                                                                                                                                                                                                                                                                                                                                                              Score 43;
Pred. No.
1; Misma
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R -> G (IN REF. 4).
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No. 1.78e+02;
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RA IKEMOTO K., INADA T., ITOH T., KAJIHARA M., KANAI K.,

RA KASHIMOTO K., KIMURA S., KITAGAWA M., KAKINO K., MASUDA S.,

RA KASHIMOTO K., KIMURA S., KOTOMURA K., MAKINO K., MASUDA S.,

RA MIKI T., MIZDUCHI K., MORI H., MOTOMURA K., MAKAMURA Y.,

RA NASHIMOTO H., NISHIO Y., SAITO N., SAMPEI G., SEKI Y., TAGAMI H.,

RA TAKEMOTO K., WADA C., YAMAMOTO Y., YANO M., HORIUCHI T.;

RA TAKEMOTO K., WADA C., YAMAMOTO Y., YANO M., HORIUCHI T.;

RA TAKEMOTO K., WADA C., YAMAMOTO Y., YANO M., HORIUCHI T.;

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RA TAKEMOTO K., WADA C., YAMAMOTO Y., YANO M., HORIUCHI T.;

RA TAKEMOTO K., MISHIO Y., SAITO N., SAMPEI G., SEKI Y., TAGAMI H.,

RA TAKEMOTO K., MISHIO Y., SAITO N., SAMPEI G., SEKI Y., TAGAMI H.,

RA TAKEMOTO K., MASAMI H., MOTOMURA K., MAKINO K., MASUDA Y.,

RA TAKEMOTO K., MISHIO Y., SAITO N., SAMPEI G., SEKI Y., TAGAMI H.,

RA TAKEMOTO K., MASAMI H., MOTOMURA K., MAKINO K., MASUDA Y.,

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EMBL; AE000192; G1787130; -.

EMBL; D90728; G1651426; -.

PIR; S01789; S01789.

ECOGENE; EG10028; PFLA.

PROSITE; PS01087; RADICAL_ACTIVATING; 1.

CXIDOREDUCTASE; IRON; GLUCOSE METABOLISM.

INIT_MET 0

METAL 29 29 IRON (POTENTIAL METAL 36 36 36 IRON (POTENTIAL SEQUENCE 245 AA; 28073 MW; 3D9FD679 CRC3
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STRAIN=K12;
MEDLINE; 89030680.
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STRAID*K12 / MG1655;
BLATTINER F.R., PLUNKETT G. III, MAYHEW G.F., PERNA N.T., GLASNER F.D.;
SUBMITTED (JAN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
[3]
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llarity 80.0%;
Conservative
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IRON (POTENTIAL).
IRON (POTENTIAL).
W; 3D9FD679 CRC32;
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1 50 94.3 192 10 023536 RESIGTANCE GENE HOMOLO 2.75e+01 2 50 94.3 1361 10 004264 3 49 92.5 324 4 015630 TRANSCRIPTION FACTOR. 4.06e+01 4 49 92.5 359 4 060759 CYTCHESIN BINDING PROT 4.06e+01 5 49 92.5 395 11 035188 NEUROTACTIN. 4.06e+01 6 49 92.5 395 11 035933 FRACTALKINE. 4.06e+01 7 48 90.6 454 4 060383 GDF-9. 5.96e+01 9 47 88.7 579 11 060736 ZONA PELLUCIDA 3 RECEP 8.70e+01 10 46 86.8 172 2 051136 ZONA PELLUCIDA 3 RECEP 8.70e+01 11 46 86.8 187 2 081316 HYPOTHETICAL 21.4 KD P 1.26e+02 13 46 86.8 187 2 081316 HYPOTHETICAL 21.4 KD P 1.26e+02 13 46 86.8 187 2 081316 HYPOTHETICAL 21.4 KD P 1.26e+02 14 86.8 334 1 057831 GLUCYL-TRNA SYNTHETASE 1.26e+02 15 46 86.8 403 5 07646 JAPAN LONG HYPOTHETICAL 1.26e+02 16 86.8 421 14 041898 POLYPROTEIN PRECURSOR 1.26e+02 17 46 86.8 2273 4 07513 CALESTICUL PRECURSOR 1.26e+02 18 46 86.8 2273 4 07513 ATP-BINDING CASSETTE T 1.26e+02 1.2	Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.  SUMMARIES  Result Query Query Query One Match Length DB ID Description Pred. No.	Database: sptremb18 1:sp_archea 2:sp_bacteria 3:sp_fung1 4:sp_human 5:sp_invertebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle 9:sp_phage 10:sp_plant 11:sp_rodent 12:sp_unclassified 13:sp_vertebrate 14:sp_virus  Statistics: Mean 22:471; Variance 34.448; scale 0.652	table: table: d: ocessing:	Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd.  protein - protein database search, using Smith-Waterman alg. Thu Apr 1 07:31:34 1999; MasPar time 4.54 Seconds Thu Apr 107:31:34 1999; MasPar time 4.54 Seconds utput not generated.  >US-08-927-939-9  on: (1-6) from US08927939.pep	**************************************
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PARKER J.E., COLEMAN M.J., S
DER BIEZEN E.A., MOORES T.,
PLANT CELL 0:0-0(0)
EMBL; U97106; G2109275; -.
PEAM; PE00560; LRR; 8.
PEAM; PE00931; NB-ARC; 1.
PEQUENCE 1361 AA; 154366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
BEVAN M., STIEKEMA W., MURPHY G., WAMBUTT R., POHL T., TERR KREIS M., KAVANAGH T., ENTIAN K.D., RIEGER M., JAMES R.,
PUIGDOMENECH P., HATZOPOULOS P., OBERMAIER B., DUESTERHOFT
JONES J., PALME K., ANSORGE W., DELSENY M., BANCROFT I., ME
SCHUELLER C., CHALMATZIS N.;
SUBMITTED (JUL-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             023536;
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EUKARYOTA; VIRIDIPLANTAE; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOP
TRACHEOPHYTA; EUPHYLLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
EUDICOTYLEDONS; ROSIDAE; CAPPARALES; BRASSICACEAE; ARABIDOPSIS.
                                                                                                                                                                                                                                                                                                                                                         ARABIDOPSIS TALIANA (MOUSE-EAR CRESS).
EUKARYOTA; VIRIDIPLANTAE; CHAROPHYTA, ZEMBERYOPHYTA GROUP; EMBRYOPHYTA;
TRACHEOPHYTA; EUPHYLLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
TRACHEOPHYTA; EUPHYLLOPHYTES; BRASSICACEAE; ARABIDOPSIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-JUL-1997 (TREMBLREL. 04, CREATED)
01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DOWNY MILDEW RESISTANCE PROTEIN RPP5.
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01-JAN-1998 (TREMBLREL.
01-AUG-1998 (TREMBLREL.
RESISTANCE GENE HOMOLOG
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                                                       Local Similarity
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larity 83.3%;
Conservative
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F17C8.1.
GUANINE NUCLEOTIDE EXC
VARIANT-SPECIFIC SURFA
GUANINE NUCLEOTIDE EXC
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  RESULT CO. AC. CO. AC.
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O35188 PRELIMINARY; PRT; 395 AA.
O35188;
O1-JAN-1998 (TREMBLREL. 05, CREATED)
O1-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UP
O1-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION
NEUROTACTIN.
SCYD1.
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MA
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  060759 PRELIMINARY; PI
060759; OTAMG-1998 (TREMBLREL: 07, CRE
01-AUG-1998 (TREMBLREL: 07, LAS:
01-AUG-1998 (TREMBLREL: 07, LAS:
01-AUG-1998 (TREMBLREL: 07, LAS:
CYTOHESIN BINDING PROTEIN HE.
HOMO SAPIENS (HUMAN)
EUKARYOTA; METAZOA; CHORDATA; VI
CATARRHINI; HOMINIDAE; HOMO.
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Q15630;
Q15630;
Q15630;
O1-NOV-1996 (TREMBLREL 01, C
O1-NOV-1996 (TREMBLREL 01, I
O1-NOV-1998 (TREMBLREL 08, I
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BIOCHIM. BIOPHYS. ACTA 1216:321-324(1993).
EMBL; L106633; G431328; -
PFAM; PF00595; PDZ; 1.
SEQUENCE 324 AA; 36318 MW; 5F2344EC CR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HEUFLER C.;
SUBMITTED (MAY-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF068836; G3192909; -.
SEQUENCE 359 AA; 40009 MW; 19DB9FC9 CRC32;
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DIXON B., SAHELY B., LIU L., POHAJDAK B.;
"Cloning a cDNA from human NK/T cells which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TRANSCRIPTION FACTOR.
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                         186 KQKWVE 191
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5; Conser
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83.3%;
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36318 MW; . 5F2344EC CRC32;
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, LAST SEQUENCE UP
, LAST ANNOTATION
                                                                                                                                                                                                                                                                                                                                                                                                    Score 49; DB 4;
Pred. No. 4.06e+
1; Mismatches
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LAST ANNOTATION
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Pred. No. 4.06e+01;
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                            EUTHERIA;
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Matches
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Best Local Similarity
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01-AUG-1998
01-AUG-1998
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MUS MUSCULUS (MOUSE).

EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;

EUKARYOTA; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-JAN-1998
01-JAN-1998
01-NOV-1998
                                                                                                         SEQUENCE FROM N.A.
KIMMERLY W., BONDOC M., CHENG J.,
DAVIS C.A., KADNER K., MIGUEL T.,
SUBRAMANIAN S., MARTIN C.H.;
SUBMITTED (MAR-1998) TO EMBL/GENB!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           060383;
060383;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (1)
STRAIN-BALB/C; TISSUE-BRAIN;
STRAIN-BALB/CHARDIMAN G., COPELAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               035933;
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SEQUENCE
                                                                                                                                                                                                                                                                                            HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS EMBL: U92565; G2459677; -. PFAM: PF00048; i18; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   [1]
SEQUENCE FROM N.A.
MEDLINE: 97320499.
PAN Y., CLARE L., HONG 2., DOLICH S., D
GOSSELIN M., MA J., DUSSAULT B., WOOLF
GUTIERREZ RAMOS J.C., GEARING D.;
   SEQUENCE FROM N.A. RICKE D.O.;
SUBMITTED (APR-199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ROSSI D., HARDIMAN G.,
ZLOTNIK A., BAZAN J.F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NATURE 387:611-617(1997).
EMBL; AF010586; G2317698;
MGD; MGI:1097153; SCYD1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Neurotactin, a membrane-anchored chemokine upregulated inflammation.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 78 KEKWVQ
|:||||
| KQKWVQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 KQKWVQ 6
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NCE 395 AA;
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Similarity 83.3%;
5; Conservative
   (APR-1998)
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395 AA;
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B (TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                                                                                                              (TREMBLREL.
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larity 83.3%;
Conservative
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07, LAST SEQUENCE UPDATE)
07, LAST ANNOTATION UPDATE)
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EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                  EMBL/GENBANK/DDBJ DATA
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Pred. No.
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Pred. No. 4.
                                                                                                                                                                                                                                                                                                                              VERTEBRATA; MAMMALIA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       454
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F B., P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 11;
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..06e+01;
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ALPERIN A., CULPEPPER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 395;
                                                                                                                  BANKS
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Best Local
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                       STRAIN-HSD/ICR; TI
MEDLINE; 95327956
                                                                                 ZP3R OR SP56.
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-FEB-1997 (TREMBLREL 02, CREATED)
01-FEB-1997 (TREMBLREL 02, LAST SEQUENCE UF
01-NOV-1998 (TREMBLREL 08, LAST ANNOTATION
HYPOTHETICAL 16.6 KD PROTEIN.
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P74671;
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                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                       DNA RES. 3:109-136(1996).
EMBL; D90917; D1019522; -.
HYPOTHETICAL PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                         "Sequence analysis of the genome of the unicellular cyanobacterium Synechocystis sp. strain PCC6803. II. Sequence determination of the entire genome and assignment of potential protein-coding regions.";
                                                                                                                                                                                                                                                                                                                                                                                                                                       KANEKO T., SATO S., KOTANI H., TANAKA A., ASAMIZU E., NAKAMURA Y., MIYAJIMA N., HIROSAWA M., SUGIURA M., SASAMOTO S., KIMURA T., HOSOUCHI T., MATSUNO A., MURAKI A., NAKAZAKI N., NARUO K., OKUMURA SHIMPO S., TAKEUCHI C., WADA T., WATANABE A., YAMADA M., YASUDA M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SYNECHOCYSTIS SP. (STRAIN PCC 6803).
BACTERIA; CYANOBACTERIA; CHROOCOCCALES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. STRAIN-PCC6803;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN-PCC6803;
TABATA S.;
                BOOKBINDER L.H.,
                                               SEQUENCE FROM N.A.
                                                                       SCIUROGNATHI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBMITTED (JUN-1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
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                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                   61 RORWVQ
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and species-specific expression of sp56,
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                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                      MURIDAE;
                                   TISSUE-TESTIS
            CHENG A., BLEIL J.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                90.6%;
                                                                                                                                                                                                                                                                                                       88.7%;
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                                                                                                                                                                                                                                                                                                                                           16561 MW;
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                                                                       MURINAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL/GENBANK/DDBJ DATA BANKS
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Pred. No. 5.9
2; Mismatch
                                                                                                                                                                                                                                                                                           Pred.
2; N
                                                                                                                                                                                                                                                                                                        Score 47; DB 2;
Pred. No. 8.70e+01
                                                                                                                                                                                                                                                                                                                                           3370B865 CRC32;
                                                                       MUS.
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                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 4; 1
5.96e+01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SYNECHOCYSTIS
                                                                                   MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  UPDATE)
                                                                                                                                                                                                                                                                                                                   Length 145;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 454;
                                                                                                                                                                                                                                                                                           0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                           Indels
  mouse
                                                                                   EUTHERIA; RODENTIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                           0;
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                                                                                                                                                                                                                                                                                           Gaps
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RESULTATION OF THE PROPERTY OF
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Best Local S
Matches
     Query Match
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                         ULT 11
Q51136 PRELIMINARY;
Q51136;
01-NOV-1996 (TREMBLREL 01,
01-NOV-1996 (TREMBLREL 01,
01-NOV-1998 (TREMBLREL 08,
H11054 HOMOLOG (FRAGMENT).
                                                                       EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         057411
057411;
01-JUN-1998
01-JUN-1998
01-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIGNAL.
SIGNAL
                                                                                                                                                                                          ERWIN A.L., GOTSCHLICH E.C.; "Cloning of a Neisseria meningitidis (L-LDH): evidence for a second mening
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ROSSI D.L., BAZAN J.F.,
SUBMITTED (JUN-1997) TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GALLUS GALLUS (CHICKEN).
EUKARYOTA; METAZOA; CHORI
NEOGNATHAE; GALLIFORMES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUN-1998 (TREMBLREL.
01-JUN-1998 (TREMBLREL.
01-JUN-1998 (TREMBLREL.
LYMPHOTACTIN PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SCIENCE 269:86-88(1995).
EMBL; U17108; G897563; -.
MGD; MGI:104965; ZP3R.
PFAM; PF00084; Sushi; 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             fertilization protein[published
25;269(5227):1120].";
                                                                                                                                                                                                                                                                                   MEDLINE; 96326323
                                                                                                                                                                                                                                                                                                                STRAIN-M1080;
                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                BACTERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE=SPLEEN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                          NEISSERIA MENINGITIDIS
                                                                                                                                                                   regulation.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  556 KEKWIQ 561
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Match 86.8%;
Local Similarity 100.0%;
les 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N
                                                                                                                                      BACTERIOL. 178:4807-4813(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QKWVQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KQKWVQ 6
                                                                                                                U58911; G1381738;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AF006742; G2827882;
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                                                                                                                                                                                                                                                                                                                                                                                             PROTEOBACTERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
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7 AA;
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                                                            A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         32
579
64950 Þ
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97
11131
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        88.7%;
  86.8%;
                                                            19765
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EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ¥;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DATA; VERTEBRATA; ARCHOSAURIA; AVES; PHASIANIDAE; PHASIANINAE; GALLUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MW;
                                                            MΨ;
                                                                                                                                                                                                                                                                                                                                                                                             BETA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CREATED)
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LAST ANNOTATION UPDATE)
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Pred. No. 8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 46; DB 13;
Pred. No. 1.26e+02;
0; Mismatches 0
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LYMPHOTACTIN.
3290101C CRC
     Score 46;
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                                                         85C8B90D CRC32;
                                                                                                                                                                                                                                                                                                                                                                                           SUBDIVISION; NEISSERIACEAE; NEISSERIA.
                                                                                                                                                                                                   meningococcal
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           172
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8.70e+01;
     B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           $
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  2;
                                                                                                                                                                                          for L-lactate cal L-LDH with
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Length 172;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROTEIN
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Best Local
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Matches 5; Conservative
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083516;
01-NOV-1998
01-NOV-1998
                                                                                                                                                                                                                067646;
01-AUG-1998
01-AUG-1998
01-NOV-1998
          MEDLINE; 98196666.

DECKERT G., WARREN P.V., GAASTERLAND T., YOUNG W.G., LENGERCHARD D. O., KELLER M., AUJAY M., GRAHAM D.E., OVERBEEK R., SNEAD M.A., KELLER M., AUJAY M., FELDMAN R.A., SHORT J.M., OLSON G.J., SWANSON R.V.;

FELDMAN R.A., SHORT J.M., PROPERTHERMOPHILIC BACTERIUM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE; 98332770.

FRASER C.M., NORRIS S.J., WEINSTOCK G.M., WHITE O., SUTTON G.G.,
PRASER C.M., NORRIS S.J., WEINSTOCK G.M., WHITE O., SUTTON G.G.,
DODSON R., GWINN M., HICKEY E.K., CLAYTON R., KETCHUM K.A.,
SODERGREN E., HARDHAM J.M., MCLEOD M.P., SALIZBERG S., PETERSON J.,
SODERGREN E., HARDHAM J.M., MCLEOD M.P., SALIZBERG S., PETERSON J.,
KHALAK H., RICHARDSON D., HOWELL J.K., CHIDAMBARAM M., UTTERBACK T.,
MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,
MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,
MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,
MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,
MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,
MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,
MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,
MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,
MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,
MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,
MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,
MCDONALD L., MCDONALD L., MEIDMAN J., SMITH H.O.,
                                                                                                                                                                                                                                                                                  LT 13
067646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FRASER C.M., NORRIS S.J., WEINSTOCK G.M., WHITE O., SUTTON G.G.,
DODSON R., GWINN M., HICKEY E.K., CLAYTON R., KETCHUM K.A.,
SODERGREN E., HARDHAM J.M., MCLEOD M.P., SALZBERG S., PETERSON J.,
KHALAK H., RICHARDSON D., HOWELL J.K., CHIDAMBARAM M., UTTERBACK T
MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND
HATCH B., HORST K., ROBERTS K., WATTHEY L., WEIDMAN J., SMITH H.O.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUBMITTED (MAR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; AEOO1226; G3322795; -.
HYPOTHETICAL PROTEIN.
SEQUENCE 187 AA; 21410 MW; 50303E26 CRC32;
"The complete aeolicus.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WENTER J.C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
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MEDLINE; 98332770
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                                                                                                  STRAIN-VF5
                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                 BACTERIA;
                                                                                                                                                                  AQUIFEX AEOLICUS
                                                                                                                                                                                                  LEUCYL-TRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SCIENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Complete Genome Sequence of Treponema pallidum, the
                                                                                                                                                                                                                                                                                                                                                                      37 QKWVQ 41
                                                                                                                                                                                                                                                                                                                                                                                                               y Match 86.8%;
Local Similarity 100.0%;
nes 5; Conservative
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Pred. No. 1.26e+02;
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               Aquifex
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                                               HUBER
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Best Local S
Matches
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Best Local
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057833;
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01-NOV-1998 (TREMBLREL.
01-NOV-1998 (TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DECKERT G., WARREN P.V., GAASTERLAND T., YOUNG W.G., LENOX GRAHAM D.E., OVERBEEK R., SNEAD M.A., KELLER M., AUJAY M., FELDMAN R.A., SHORT J.M., OLSON G.J., SWANSON R.V.; SUBMITTED (JUL-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AEO00755; G2984068; -.
AMINOACYL-TRNA SYNTHETASE.
SEQUENCE 289 AA; 33535 MW; 65FB9A21 CRC32;
                                                                                                                                                                                                           NECATOR AMERICANUS.

EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; STRONANCYLOSTOMATOIDEA; ANCYLOSTOMATIDAE; BUNOSTOMINAE; NECATOR
                                                                                                                                                                                                                                                                                                                                                                                                                                 076961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUBMITTED (DEC-1997) TO EMBL/GENBANK/DDBJ DATA EMBL; AB009467; D1027216; - SEQUENCE 334 AA; 36602 MW; 6F4BA2E5 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-AUG-1998 (TREMBLREL.
01-AUG-1998 (TREMBLREL.
01-AUG-1998 (TREMBLREL.
"Calreticulin is a hookworm allergen.";
SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ
EMBL; AJ006790; E1300555;
PROSITE; PS00803; CALRETICULIN_1; 1.
PROSITE; PS00804; CALRETICULIN_2; 1.
                                                                                                                   SEQUENCE FROM N.A.

PRITCHARD D.I., BROWN A., MCEL
BERRY C., FULLKRUG R., BECK E.
                                                                                                                                                                                                                                                                                                                CALRETICULIN
                                                                                                                                                                                                                                                                                                                                                                                                             076961;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KAWARABAYASI Y., SAWADA M., HORIKAWA H., HAIKAWA Y., HINO Y., YAMAMOTO S., SEKINE M., BABA S., KOSUGI H., HOSOYAMA A., NAGAI Y., YAKAMI M., OGURA K., OTSUKA R., NAKAWA H., TAKAMIYA M., OHFUKU Y., FUNAHASHI T., TANAKA T., KUDOH Y., YAMAZAKI J., KUSHIDA N., OGUCHI A., AOKI K., YOSHIZAWA T., NAKAMURA Y., MASUCHI Y., SHIZUYA H., KIKUCHI H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PYROCOCCUS HORIKOSHII. ARCHAEA; EURYARCHAEOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-VF5;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             290 KEKWVH 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
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07, LAST SEQUENCE UPDATE)
07, LAST ANNOTATION UPDATE)
PROTEIN.
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                                                                                                                                                MCELROY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 46; D
Pred. No. 1.
2; Mismatc
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Pred.
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LAST SEQUENCE UPDATE)
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1.26e+02;
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Best Local S
Matches
SEQUENCE FROM N.A.

X MEDLINE; 94150718.

ANDERSON K., BAXNES C., BERKS M., BONFIELD J.,

ANDERSON R., AINSCOUGH R., COPSEY T., COOPER J., COULSON A., CRAXYON M.,

ANDEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,

ANDEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,

ANDEAR S., DU Z., DURBIN R., JOHNSTON L., JONES M., KERSHAW J.,

ANDEAR J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,

AND KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,

AND KIRSTEN J., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,

AND KIRSTEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A.,

AND SONNHAMMER E., STADEN R., SULSTON J., THIERRY-MIEG J., THOMAS K.,

AND SONNHAMMER E., STADEN R., WATERSTON R., WATSON A., WEINSTOCK L.,

WILKINSON-SPROAT J., WOHLDMAN P.;

TO "2.2 Mb of contiguous nucleotide sequence from chromosome III of C.

TO elegans.";
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Best Local S
Matches
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045303; 045877;
01-JUN-1998 (TREMBLREL 00
01-NOV-1998 (TREMBLREL 01
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041898
041898;
01-JAN-1998 (TREMBLREL 0
01-JAN-1998 (TREMBLREL 0
01-NOV-1998 (TREMBLREL 0
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SIGNAL; ALLERGEN.
SIGNAL 1
SEQUENCE 403 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
BADGE J.L., KASHIWAZAKI S., LOCK S
BUR. J. PLANT PATHOL. 0:0-0(1997).
EMBL; U95205; G2443461; -.
PFAM; PF00767; Poty_coat; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                        CAENORHABDITIS ELEGANS
EUKARYOTA; METAZOA; NEI
RHABDITINA; RHABDITOIDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        POLYPROTEIN (FRAGMENT).
RICE NECROSIS MOSAIC VIRUS.
VIRUSES; SSRNA POSITIVE-STRAND VIRUSES,
                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
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Local Similarity 100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KERWVQ 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
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                                                                                                                                                                                                                                                                                                                                                   (NOV-1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1
421 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 403 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                        METAZOA; NEMAT RHABDITOIDEA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CALRETICULIN_REPEAT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16
46833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                NEMATODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            47711 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               86.8%;
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80,
80,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             865,
                                                                                                                                                                                                                                                                                                                                                   EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                      DDA; SECERNENTEA; RHABDITI RHABDITIDAE; PELODERINAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 46;
Pred. No.
0; Misma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 46;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6FE8B9A5 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; DB 1.
1.26e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FOSTER G.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 5; I
1.26e+02;
                                                                                                                                                                                                                            BAYNES C., BERKS M., BONFIELD PER J., COULSON A., CRAXTON M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ω
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B
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                                                                                                                                                                                                                                                                                                                                                   DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                        RHABDITIA; RHABDITIDA;
ODERINAE; CAENORHABDITIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 421;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             POTYVIRIDAE;
                                                                                                                                                                                                                                                      BONFIELD J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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Best Local Similarity
Matches 5; Conse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                           JLT 19
015112;
015112;
01-JAN-1998
01-AUG-1998
01-NOV-1998
ATP-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.

MEDLINE; 97207641.

ALLIKMETS R., SINGH N., SUN H., SHROYER N.F., HUTCHINSO CHIDAMBARAM A., GEBRARD B., BAIRD L., STAUFFER D., PEIF RATTNER A., SMALLWOOD P., LI Y., ANDERSON K.L., LEWIS R LEPPERT M., DEAN M., LUPSKI J.R.;

"A photoreceptor cell-specific ATP-binding transporter mutated in recessive Stargardt macular dystrophy.";

NAT. GENET. 15:236-246(1997).

EMBL; U88667; G1888527; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAY-1997
01-NOV-1998
01-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBMITTED (NOV-1996) TO, EMBL/GENE
EMBL; 292780; E1321927; -.
EMBL; AL021466; E1311927; JOINED.
EMBL; AL021466; E1315522; -.
EMBL; 292780; E1315522; JOINED.
SEQUENCE 912 AA; 104030 MW; 1
gene
FEBS
[2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P78363
P78363;
                                                                                                                                                                   HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                               "The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. SMYE R.;
                                                                             SEQUENCE FROM N.A.
MEDLINE; 97345663.
AZARIAN S.M., TRAVIS G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATP-BINDING SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATARRHINI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATP-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NATURE 368:32-38(1994).
[3]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 821 KQKWV 825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 KQKWV 5
                    photoreceptor rim protein for recessive Stargardt's LETT. 409:247-252(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KQKWTQ 1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                            KQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        h 86.8%;
Similarity 100.0%;
5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2273 AA;
                                                                                                                                                                                                                                                           (TREMBLREL. 05, CREATED)
(TREMBLREL. 07, LAST SEQUENCE UPDATE)
(TREMBLREL. 08, LAST ANNOTATION UPDATE)
CASSETTE TRANSPORTER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            σ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TREMBLREL. 03, CREATED)
(TREMBLREL. 08, LAST SEQUENCE UF
(TREMBLREL. 08, LAST ANNOTATION
CASSETTE TRANSPORTER.
                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    86.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    256042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TO, EMBL/GENBANK/DDBJ DATA BANKS
                                                                                   .H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OWOH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                UN H., SHROYER N.F., HUTCHINSON A.,
., BAIRD L., STAUFFER D., PEIFFER A.,
IY., ANDERSON K.L., LEWIS R.A., NI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 46; D
Pred. No. 1.
0; Mismatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 46; DB 4; I
Pred. No. 1.26e+02;
0; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERTEBRATA;
                                                                                                                                                                                            VERTEBRATA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                      is an ABC transporter disease (ABCR).";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1299986C CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EB380008 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2273 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .26e+02;
                                                                                                                                                                                                                                                                                                                                                                      B
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 2273;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
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                                                                                                                                                                                            EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EUTHERIA; PRIMATES;
                                                             encoded
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene (ABCR) is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
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                                                          γģ
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                                                          the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
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RESULTION OF THE PROPERTY OF T
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 5; Conser
                                                                                                                                                                                                                                                                                                                                              JLT 21
060915
060915;
01-AUG-1998
01-AUG-1998
01-NOV-1998
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060438;
01-AUG-1998
01-AUG-1998
01-NOV-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM
MEDLINE; 98141
NASONKIN I., 1
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE; 98163759.
GERBER S., ROZET J.M., VAN DE POL T.J.R.,
BLANKENAGEL A., KAPLAN J., CREMERS F.P.M.,
BLANKENAGEL A., TAPLAN J., CREMERS F.P.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1476 KQKWTQ
                                                                                                                                                                                            HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1476 KQKWTQ 1481
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SUBMITTED (JUN-1998) TO EMBL/GENBĀNK/DDBJ
EMBL; AF000148; G3243082; -.
PERAM; P600005; ABC_tran; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NASSONKIN I, ILLING M.E., MOLDAY R.S.;
SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS
EMBL; AF001945; G2959643; -.
SEQUENCE 2273 AA; 255991 MW; D8A82C98 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Mapping of the rod photoreceptor ABC transporter (ABCR) to 1p21-p22.1 and identification of novel mutations in Stargardt's disease."; HUM. GENET. 102:21-26(1998).
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EUKARYOTA; METAZOA; CHORDATA;
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SEQUENCE 2273 AA;
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larity 83.3%;
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TO EMBL/GENBANK/DDBJ DATA BANKS.
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HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
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Y15635; E1283
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RA AZEVEDO V., BERTERO M.G., BESSIERES P., BOLOTIN A., BORCHERT S.,
RA AZEVEDO V., BERTERO M.G., BESSIERES P., BOLOTIN A., BORCHERT S.,
RA BORRISS R., BOURSIER L., BRANS A., BRAUN M., BRIGNELL S.C., ERON S.,
RA BORRISS R., BRUSCHI C.V., CALLWELL B., CAPUANO V., CARTER N.M.,
RA BROUILLET S., BRUSCHI C.V., CALLWELL B., CAPUANO V., CARTER N.M.,
RA CHOI S.K., CODANI J.J., CONNERTON I.F., CUMMINGS N.J., DANIEL R.A.,
RA CHOI S.K., CODANI J.J., CONNERTON I.F., CUMMINGS N.J., DANIEL R.A.,
RA CHOI S.K., CODANI J.J., CONNERTON I.F., CUMMINGS N.J., DANIEL R.A.,
RA CHOI S.K., CODANI J.J., CONNERTON I.F., CUMMINGS N.J., DANIEL R.A.,
RA CHOI S.K., CODANI J.J., FABRET C., FERRARI E., FOULGER D., FRITZ C.,
RA FUJITA M., FUJITA Y., FUMA S., GALLERON N., GHIM S.Y.,
RA CHOIS S., HOSONO S., HULLO M.F., ITAYA M., JONES L., JORIS B.,
RA HOLSAPPEL S., HOSONO S., HULLO M.F., ITAYA M., JONES L., JORIS B.,
RA KOETTER P., KONINGSTEIN G., KROGH S., KUMANO M., KURITA K., LAPIDUS A.,
RA KOETTER P., KONINGSTEIN G., KROGH S., KUMANO M., KURITA K., LAPIDUS A.,
RA KARAMATA D., KASAHARA Y., KLAZAREVIC V., LEE S.M., LEVINE A., LIU H.,
RA MOESTI D., NAKAI S., NOBACK M., NOONE D., O'REILLY M., OGAWA K.,
RA MOESTI D., NAKAI S., NOBACK M., NOONE D., O'REILLY M., OGAWA K.,
RA MOESTI D., NAKAI S., NOBACK M., NOONE D., O'REILLY M., OGAWA K.,
RA RAPOPORT G., REY M., REYNOLDS S., RIEGER M., RIVOLTA C., ROCHA E.,
RA RAPOPORT G., SHIN B.S., SOLDO B., SOROKIN A., TACCONI E., TAKAGI T.,
RA RACHE B., ROSE M., SADAIE Y., SATO T., SCANLAN E., SCHLEICH S.,
RA TERPSTRA P., TOGNONI A., TOSATO V., UCHIYAMA S., VANDENBOL M.,
RA TAKAHASHI H., TAKEMARU K., TAKEUCHI M., TAKAKANGSHI A., TANAKA T.,
RA TARARASHI H., TAKEMARU K., TAKEUCHI M., TAKAKANGSHI A., TANAKA T.,
RA YASUMOTO K., YATA K., YOSHIDA K., YOSHIKAWA H.F., ZUMNEE K.,
RA YASUMOTO K., YATA K., YOSHIDA K., YOSHIKAWA H.F., ZUMNEE K.,
RA YOSHIKAWA H., DANCHIN A.,
ROCHE REGERET T., WILTERS P., WIPOTA A., YANANOTO H., YANANO K.,
RA YOSHIKAWA H., DANCHINA A.,
RA YASUMOTO K., YATA K., YOSHICA G., TANAKA T.,
RA YASUMOT
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Best Local Similarity
Matches 5; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PATEL V.P., KREIDER B.L., LI
NADELLI B., PIPPALLA V., GE
GENTZ R., GAROTTA G.;
J. EXP. MED. 0:0-0(0).
EMBL; 085768; G1916252; -.
EMBL; 085768; G1916252; -.
PFAM; PF00048; Il8; 1
SEQUENCE 119 AA; 13119 My
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  031562
031562;
031562;
01-JAN-1998
01-JAN-1998
01-NOV-1998
                                                 SEQUENCE FROM N.A.
STRAIN-168;
KUNST F., OGASAWARA N.,
SUBMITTED (NOV-1997) TO
                                                                                                                                                                                                                           "The complete subtilis.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BACILLUS SUBTILIS.
BACTERIA; FIRMICUTES;
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BACILLUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATARRHINI; HOMINIDAE; HOMO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE; 98044033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A
                                                                                                                                                                                              NATURE 390:249-256(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      78 KQEWVQ 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 KQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (TREMBLREL.)
(TREMBLREL.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          84.9%;
larity 83.3%;
Conservative
                                                                                                                                                                                                                                                   sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BACILLUS/CLOSTRIDIUM GROUP; BACILLACEAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        86,6
                                                 YOSHIKAWA H., DANCHIN A.;
EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LI Y., LI
GENTZ S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 45;
                                                                                                                                                                                                                                                      of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CDF526F0 CRC32;
                                                                                                                                                                                                                                                      the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      H., LEUNG
THOTAKURA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.83e+02;
                                                                                                                                                                                                                                                gram-positive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ⋧
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 119;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SALCEDO T.,
PARMELEE D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                      bacterium Bacillus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
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RESULT ID OF ACT OF ACT
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Matches 4; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
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017645;
017645;
01-JAN-1998
01-JAN-1998
01-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A., CRAXTON M. DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J., KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C., KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C., CONTRAY A., WORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C., RIFKEN L., ROOPEA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH & SONNHAMMER E., STADEN R., SULSTON J., THIERRY-MIEG J., THOMAS K., VADURAN K., WATERSTON R., WATSON A., WEINSTOCK L., "12.2 Mb of contiguous nucleotide sequence from chromosome III of C. elegans";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the sspE locus.";
DEMBL; 3:257-262(1996).
EMBL; 299108; E1182829; -.
EMBL; D85082; D1025376; -.
SEQUENCE 178 AA; 20666 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE;
YAMAMOTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YAMAMOTO H., UCHIYAMA S., SEKIGUCHI J.; "Cloning and sequencing of a 27.8-kb nucleotide sequence of the 79 degrees-81 degrees region of the Bacillus subtilis genome containing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NATURE 368:32-38(1994).
EMBL; Z81479; E1186781;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUBMITTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RHABDITINA; RHABDITOIDEA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAENORHABDITIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      178 KQMWIQ 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24 KDKWIQ 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 KQKWVQ 6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97101647
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (TREMBLREL.
(TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            σ
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ilarity 66.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ₽,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ELEGANS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781; -.
45051 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84.9%;
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                                                                                                                                                                                                      07, CREATED)
07, LAST SEQUENCE UPDATE)
08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ODA; SECERNENTEA; RHABDITIA; RHABDITIDA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 45; DB 5; I
Pred. No. 1.83e+02;
2; Mismatches 0
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Pred. No. 1.83e+02;
2; Mismatches 0;
                                                                                                                                                                           (FRAGMENT).
                                                                                                           VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BAYNES C., BERKS M., BONFIELD PER J., COULSON A., CRAXTON M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CRC32
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                                                                                                                                                                                                                                                                                                                                        ₿
                                                                                                        MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 383;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                           EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BONFIELD J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GREEN P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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RESULT 26

ID Q33206;

AC Q23206;

DT 01-NOV-1996;

DE SIMILARITY TO
GENERALITY TO
RA WILSON R., A.,
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Best Local Similarity
Matches 4; Conse
Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN-BRISTOL N2;
WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFI.
BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A., CRAXTON
DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GR
HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW
KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
MCMURRAY A., MORTIMORE B., O'CALLAGHAM M., PARSONS J., PERCY C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1996 (TREMBLREL 01, CREATE 01-NOV-1996 (TREMBLREL 07, LAST 8 01-AUG-1998 (TREMBLREL 07, LAST A SIMILARITY TO NUCLEOLUS-CYTOPLASM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE-BRAIN;
MEDLINE; 96207227.
ANDERSSON B., WENTLAND M.A., RICAFRENTE J.Y., LIU W., G
"A "double adaptor" method for improved shotgun library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBMITTED (MAR-1998) TO EI EMBL; AF055010; G3005733;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YU W., ANDERSSON B., WORLEY K.C.,
RICAFRENTE J.Y., WENTLAND M.A., LI
"LATYG"-SCALE CONCASTENATION CDNA SE
GENOME RES. 7:353-358(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      construction.";
ANAL. BIOCHEM. 236:107-113(1996).
                                                                                                                                                     SEQUENCE FROM N.A.
STRAIN-BRISTOL N2;
                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. STRAIN-BRISTOL N2;
                                                                                                                                                                                                                                                                                                                                                                                    SONNHAMMER E., STADEN R., VAUDIN M., VAUGHAN K., WA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EUKARYOTA; METAZOA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE-BRAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                             SUBMITTED (FEB-1995) TO EMBL/GENBANK/DDBJ DATA
                                                                                                                                                                                                                                                                                                                                       NATURE 0:0-0(0).
                                                                                                                                                                                                                                                                                                                                                              WILKINSON-SPROAT J.,
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483
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Similarity
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                                                                                                                                                                                                                           (MAR-1995)
                                                                                                                                                                                                                                                                                                                                                                               ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., E., STADEN R., SULSTON J., THIERRY-MIEG J., THOMAS YAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
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3 AA; 55009
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Score 45;
Pred. No.
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
OPLASM SHUTTLE PHOSPHOPR
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Pred. No. 1.83e+02;
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, LENNON G., GIB
A sequencing.";
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DB 5; I
1.83e+02;
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, GIBBS R.A.;
J.";
                                                                                                                                                                                                                           DATA
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                  Length 483;
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O23532 PRELIMINARY;
O23532;
O1-JAN-1998 (TREMBLREL. 05, C)
O1-JAN-1998 (TREMBLREL. 05, L)
O1-NOV-1998 (TREMBLREL. 08, L)
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062146;
01-AUG-1998
01-AUG-1998
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WILSON R.
                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
SEQUENCE FROM N.A., MURPHY G., WAMBUTT R., POHL T., TERRYN
BEVAN M., STIEKEMA W., MURPHY G., WAMBUTT R., POHL T., TERRYN
KREIS M., KAVANAGH T., ENTIAN K.D., RIEGER M., JAMES R.,
CONTRACTOMENECH P., HATZOPOULOS P., OBERMADIER B., DUESTERHOFT A.,
DUESTERHOFT A.,
DUESTERHOFT A.,
MEWES
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                                                                                                                                                                                                                                                                                                                                                                                                                                               ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
EUKARYOTA; VIRIDIPLANTAE; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;
TRACHEOPHYTA; EUPHYLLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
EUDICOTYLEDONS; ROSIDAE; CAPPARALES; BRASSICACEAE; ARABIDOPSIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAENORHABDITIS ELEGANS.
EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
RHABDITINA; RHABDITOIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
EU ARABIDOPSIS SEQUENCING SUBMITTED (JUN-1997) TO ENEMBL; Z97342; E327023; -.
                                                                                                                                                                          SCHUELLER C., CHALWATZIS
SUBMITTED (JUL-1997) TO I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESISTANCE GENE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NATURE 368:32-38(1994).
EMBL: 283104: E1297723;
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                                                                                                         SEQUENCE FROM N.A.
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(TREMBLREL.)
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68139 MW;
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08,
                                NG PROJECT, ESSA;
EMBL/GENBANK/DDBJ
                                                                                                                                                                              EMBL/GENBANK/DDBJ
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Pred. No. 1.83e+02;
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O1-NOV-1998
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SEQUENCE
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O33005 O1-JUL-1997 (TREMBLREL. 04, CREATED)
O1-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
O1-JUL-1997 (TREMBLREL. 04, LAST ANNOTATION UPDATE)
ORF2280 GENE HOMOLOG (FRAGMENT).
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PFAM; PF00931; NB-ARC; 1.
SECUTENCE 1038 AA; 117379
                                                                                                                                                           SEQUENCE FROM N.A.

DOWNIE S.R., KATZ-DOWNIE D.S.

AM. J. BOT. 84.253-273(1997).

EMBL; U48553; E309444; -.
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TRACHEOPHYTA; EUPHYLLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
EUDICOTYLEDONS; CARYOPHYLLIDAE; CARYOPHYLLALES; CHENOPODIAC
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
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e of poyline e of p6 prec onocyte chen human II-8, human II-8, tractant pre e encoded by cid sequence s expressed schocyte CC otaxin. L-8, peptor-intera e glycan bin human II-8, DF-1-alpha. encoded by F-1-beta. human II-8,	5.71e 5.71e 5.71e 5.71e 5.71e 5.71e 5.71e 7.31e	71e 71e 71e 71e 71e 71e 71e 71e	t human IL-8, Y1 5.71e. t human IL-8, Y4 5.71e. xine-like protei 5.71e. xine-like protei 5.71e. xine-like protei 5.71e. xine-like protei 5.71e. nce of a synthet 5.71e. xine-like protei 5.71e. leukin(1-72) pro 5.71e. leukin(1-73) pro 5.71e. interleukin-8 m 5.71e. neutrophil chem 5.71e. interleukin-8. 5.71e. neutrophil acti 5.71e. neutrophil acti 5.71e.	le interleukin-8 5.71e- neutrophil chem 5.71e- pphil chemotacti 5.71e- thuman II-8, 71 5.71e- thuman II-8, 72 5.71e- thuman II-8, 74 5.71e- thuman II-8, 75 5.71e- pphil-specific c 5.71e- phil-systeman II-8, 72 5.71e- thuman II-8, 74 5.71e- thuman II-8, D4 5.71e-	hemo 2.12e 2

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Human monocyte chemotactic factor type polypeptide and DNA encoding it - useful as antibacterial and antitumour agents. Claim 2; Page 25; 27pp; English.

The sequence was deduced from the DNA sequence determined from three recombinant plasmids, pHMCF7, pHMCF25 and pHMCF29 which were isolated from a cDNA library prepd. from RNA extracted from human promyelocytic leukaemia cell line, HL-60 (ATCC CCL-240).

Tyectors. In plasmids pHMCF7 and pHMCF29 bases 105 and 226 were and G resp; in pHMCF25 they were C and A resp. The AA at posn.

To of the precursor protein is therefore not determined and may be either Ala or Thr. The protein may be produced by recombinant DNA techniques in E.coli, and is useful as a drug for treatment of certain bacterial infectons and cancers.
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                             Matches
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CA2152141-A.
20-DEC-1996.
19-JUN-1995;
                                                                                                  Monocyte chemoattractant protein analogue MCP-1 (10-76).
Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R06398 standard; protein;
R06398;
14-DEC-1990 (first entry)
                                                                                lung
                                                                                                                                                                                                               W13598 standard;
W13598;
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01-JAN-1989; JP-000065.

03-FEB-1989; JP-026438.

(USDC ) US SEC OF COMMERCE.
                                                                Homo
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mes 11; Consen
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                                                              sapiens.
                                                                                  disease.
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larity 91.7%;
Conservative
                                                                                                                                                                                       (first entry)
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24..99
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/note="Claim 1"
                                                                                                                                                                                                                                    peptide;
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R70252
W14991
W11132
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R70804
W42072
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Pred. No. 1.00e-02;
0; Mismatches 1
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Eotaxin chemoattracta
Guinea pig eosinocyte
Human interleukin-8 u
Chimeric interleukin-
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Human MC proprotein.
Human beta-chemokine
Novel murine CX3C 395
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                                                                                                       Disclosure; Page 5; 27pp; English.

Disclosure; Page 5; 27pp; English.

The present sequence represents an analogue, MCP-1 (11-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 as it lacks MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammation sites. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   anti-inflammatory agent anti-inflammatory agent Disclosure; Page 5; 27pp; English.
The present sequence represents an analogue, MCP-1 (10-76), o The present sequence represents. The analogue, which lacks for the present protein-1 (MCP-1). The analogue, which lacks
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                                                                                                   providing with 75:1
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Monocyte chemoattractant protein analogue MCP-1 (11-76).
Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte;
chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Gong J, Lewis 1, WPI; 97-165844/16.
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19-JUN-1995; CA-152141.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-JUN-1995; CA-152141.
(LEWI/) LEWIS I.
                                                                                                                                                                                                                                                                                                                                                                                ant1-inflammatory_agent
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
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89.1%;
ilarity 91.7%;
Conservative
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llarity 91.7%;
Conservative
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AA;
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Pred. No. :
0; Mismat
Score 90; DB 24;
Pred. No. 2.12e-02;
0; Mismatches 1
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. No. 2.12e-02;
Mismatches 1;
                                       Length
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Best Local S
Matches 1
                                                                                   18-MAY-1995.

17-NOV-1994; U12874.

12-NOV-1993; US-152301.

(DAND ) DANA FARBER CANCER II

ROllins B, Zhang YJ;

WPI; 95-215051/28.
                                                                                                                                                                                                                                                       disulfide_bond disulfide_bond WO9513295-A1.
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W13597;
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19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
endogenous MCP-1 and
                          Human monocyte chemo-attractant protein-1 (MCP-1) derivs. capable of inhibiting the monocyte chemo-attractant activ
                                                                                                                                                                                                                                                                                                                                                                                                   modified_site
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monocyte chemoattractant protein; MCP-1; mutant; restenosis;
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21-FEB-1996 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 anti-inflammatory agent
Claim 7; Page 5; 27pp; English.
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5..45
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91.7%;
can be used
                             monocyte chemo-attractant activity
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. No. 2.12e-02;
Mismatches 1; Indels
to treat restenosis
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                  The present sequence represents an analogue, MCP-1 (8-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammation sites MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared with 75:1 for prior art mutant 7ND.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                W13596;
W13596;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-terminally truncated monocyte chemo:attractant lacks MCP-1 activity and inhibits receptor bindir anti-inflammatory agent Claim 5; Page 5; 27pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gong J, Lewis 1; WPI; 97-165844/16.
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                          21-MAR-1997 (first entry)
                                                       W09374 standard;
W09374;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19-JUN-1995;
19-JUN-1995;
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                                                                                                     Disclosure;
Peptide is d
leukocytes a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This is the amino acid sequence of the human monocyte chemoattractant protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent stimulator of monocyte chemotaxis and is produced by injured vascular smooth cells thus attracting monocytes and macrophages which infiltrate the injured area and release growth factor. This causes proliferation of the vascular smooth cells resulting in restenosis. The gene sequence can be used to generate antisense sequences e.g. T48093-7, which can be used to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or macrophages, or smooth muscle cells, esp. in order to prevent vascular restenosis.
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05-NOV-1996.
22-OCT-1992;
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P90292;
17-JAN-1990
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31-JAN-1989; US-30423.
31-JAN-1989; US-304234.
(USSH) US Dept. of Health and Human.
Yoshimura T; Robinson E; Appella E;
WPI; 89-263501/36.
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27-MAY-1994; US-250958.
(UNMI) UNIV MICHIGAN.
Kunkel SL, Lyle LR, Strieter RM;
WPI; 96-505405/50.
                                                                                                                                                                        neoplasms.
                                                                                                                                                                                       New peptide with specific from glioma or leucocyte c
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Disclosure; Column 13-14; 16pp; English.
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mononuclear cell; lymphocyte; macrophage; smooth muscle cell:
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larity 91.7%;
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                                                                                                                                                                                                                                                                                                                                                                            'note= "pyroglutamic acid"
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91.7%;
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2.12e-02;
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07-MOV-1994; U12874.
12-NOV-1993; US-152301.
(DAND) DANA FARBER CANCER INST IN
ROLLINS B, Zhang YJ;
WPI; 95-215051/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             R53398;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     endogenous MCP-1 and can be used to treat restenosis

Claim 3; Page 11; 22pp; English.

Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28 Tyr by Leu and/or 30 Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate: (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1089.

The peptides can be used to prevent restenosis, e.g. in patients sequence of the parent and provided that a substitution of the parent restenosis, e.g. in patients.
                                                                                                  28-APR-1994.
20-OCT-1993; U10074.
22-OCT-1992; US-965678
(MLCW ) MALLINCKRODT M
                                                                                                                                                                                                                                                                                                                                                          Antisense; RNA; DNA; monocyte chemotactic radionuclide; vascular restenosis; alpha;
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Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and peptide(s) - is used for inhibiting, treating or imaging areas of
                                                      Lyle LR;
WPI; 94-151314/18.
                                                                                                                                                                                                           W09409128-A.
                                                                                                                                                                                                                                                            misc_difference
                                                                                                                                                                                                                                                                                                                                                                                                                 Sense MCP-1
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                                                                                                                                                                                                                                                                                                                Mammalian.
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                                                                                                                                                                                                                                                                                                                                  monocytes; vascular injury.
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12..52
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91.7%;
                                                                                                        MEDICAL
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Pred. No. 2.12e-02;
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beta; emitting is
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                                                                                                                                                                                                                                                                      FPT Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are grapable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis

Claim 5; Page 11; 22pp; English.

CM Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations cree; (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino caids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1389.

The peptides can be used to prevent restenosis, e.g. in patients
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Matches 1
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R28660 standard; Protein; 76 AA.
R28660;
24-MAR-1993 (first entry)
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07-NOV-1994; U12874.

12-NOV-1993; US-152301.

(DAND ) DANA FARBER CANCER INST INC.

ROllins B, Zhang YJ;

WPI; 95-215051/28.
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(24-Arg) MCP-1.
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                                                                                                                                         50 eicadpkqkwvq 61
                                                                                                                                                                         Local Similarity
mes 11; Conser
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larity 91.7%;
Conservative
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given in R53398-99 represent sense and antisense
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Pred. No. 2.12e-02;
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RESULT ACTION OF THE PROPERTY 
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C. Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the care: (1) provided that the derivative has not been modified by the care: (1) substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations care: (1) substitution of 28 Tyr by asspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino cards 2-8. The present sequence is a specifically claimed human MCP-1 cards 2-8. The present protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.

C. The peptides can be used to prevent restenosis, e.g. in patients
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Claim I; Page 48 + Page 36; 56pp; English.
An expression plasmid, pHM483, for producing MCF(76) consisting of 76 amino acids was constructed. The prod. can be used for treating bacterial infectious diseases.
Sequence 76 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-MAY-1995.
07-NOV-1994; U12874.
12-NOV-1993; US-152301.
(DAND ) DANA FARBER CANCER INST INC.
ROllins B, Zhang YJ;
WPI; 95-215051/28.
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27-APR-1992; J00550.
09-MAY-1991; JP-135950
                                                                                                                                                undergoing
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(3-Ala) MCP-1.
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Local Similarity 91.7%;
hes 11; Conservative
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25-FEB-1997.
05-OCT-1992; US-956863.
05-OCT-1992; US-956863.
05-OCT-1994; US-956862.
29-ARP-1994; US-235659.
(MLCW ) MALLINCKRODT MEDICAL INC.
(UMMI ) UNIV MICHIGAN.
KUNKel SL, Lyle LR, Strieter RM;
WPI; 97-133541/14.
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23 MAR-1995.
13-SEP-1994; J01512.
13-SEP-1993; JP-227385.
(TORA) TORAY IND INC.
(MATSUSHIMA K, NATUTO M;
WPI; 95-131181/17.
                  targetted delivery of radioactive agent Example 10; Column 19-20; 15pp; English.
Will31 represents mature human monocyte chemoattractant protein-1
(MCP-1). MCP-1 was radionuclide labelled and used in a method for imaging a target site in vivo in an animal. Labelled MCP-1 was allowed to accumulate at a target site (having MCP-1 receptors) in the animal and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys chemokine carrying either iodine-123 or iodine-131 can be used in the method. Especially preferred is neutrophil activating peptide-2 (NAP-2) which recognises interleukin-8 receptors and is labelled with technetium-99m, indium-111, copper-62, thenium-186 or rhenium-188.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wound treatment using monocyte chemotactic factor - has potent therapeutic effect on skin wounds and ulcers
Disclosure; Page 12; 22pp; Japanese.
The invention relates to a new remedy for curing wounds which, instead of comprising a growth factor, comprises a monocyte chemotactic activating factor (MCAF) or its variants or derivatives. The factor has potent effect on skin wounds and ulcers. The present sequence is human MCAF, the activity of which is exemplified as the new remedy.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mature human monocyte chemoattractant protein-1 (MCP-1). MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8; IL-8; neutrophil activating peptide; labelling; imaging; targeting; radionuclide; infection; inflammation; neoplasm; atheromatous lesion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W11131 standard; protein; 76 AA. W11131;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Radio: labelling neutrophil-activating peptide(s) -
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11; Conse
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Pred. No. 2.12e-02;
0; Mismatches 1
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factor; MCAF; wound remedy.
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inflammation
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WO9509232-A.
06-APR-1995.
28-SEP-1994;
28-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Page 5; 50pp; English.

This sequence represents the mature form of monocyte chemotactic protein-1 (MCP-1). MCD-1 is a member of the "C-C" family of chemoattractant cytokines or chemokines. It is a potent stimulator of monocyte chemotaxis and has an extemely high degree of specificity for this cell type. MCP-1 is produced by injured vascular smooth muscle cells and attracts the monocytes and macrophages which infiltrate the area, releasing growth factors and resulting in proliferation of vascular smooth muscle and restenosis. Nucleic acid molecules which are antisense to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may be useful for inhibiting vascular restenosis, partic. following balloon angioplasty or a related process. The molecule may be radiolabelled to increase its therapeutic effect or for imaging areas of potential
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
WO9519167-A1.
20-JUL-1995.
                                                                                                                                                              Human monocyte chemoattractant factor hMCP-1; chemokine; v
Human monocyte chemoattractant factor; hMCP-1; chemokine; v
meningitis related homologous antigenic sequence; MRHAS; RV
immunoassay; diagnosis; treatment; prophylactic; bacterial;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB; T03528.

N-PSDB; T03528.

New anti:sense oligo:nucleotide(s) and peptide(s) for inhibiting restenosis - are directed against C-C family cytokine(s) such as monocyte chemotactic protein, opt. radio:labelled for therapy or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Antisense; monocyte chemotactic protein-1; MCP-1; "C-C" family; chemoattractant cytokine; chemokine; monocyte; chemotaxis; vascular smooth muscle cell;
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                                                                                                                                                                                                                                                                                                                                   R73914 standard;
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Mature MCP-1.
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                                                                                                             Homo sapiens.
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WPI: 95-263703/34.
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14-JAN-1994; US-182917
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91.7%;
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Pred. No.
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Pred. No. 2.12e-02
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2.12e-02;
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Claim 47; Fig 8/10; 98pp; English.

R73914 is the chemokine Human monocyte chemoattractant factor hMcP-1.

R73914 is the demokine Human monocyte chemoattractant factor hMcP-1.

R73915 and R73907, which are recognised by a monoclonal antibody from the hybridoma Rubella virus (RV)-1. The claimed MRHAS peptides may be used in immunoassays to diagnose the presence of bacterial and/or viral meningitis agents in a sample, or in prophylactic and therapeutic meningitis treatments. The peptides may also be used as vaccines against meningitis.

NB: Identified by matching corresponding MRHAS peptides.
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                                                                                                                                                                                                                                                                                                                                                                                                                                   vector, and glutathione Sequence 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Screening for cpds. with anti-heparanase activity - by detecting inhibition of heparin or heparan sulphate degradation, potentially useful for treating arthritis, restenosis, cancer. Claim 13; Page 49; 60pp; English.

Purified heparanases, prepared under reducing conditions and activated with transglutaminase, are given in R70786-804. Most are prepared by reverse transcription of mRNA from activated human leukocytes, then cloning of the cDNA into pVI1392 baculovirus vector, and expression in Sf9 cells in the presence of reduced glutathione and dithiothreitol.
Human monocyte chemo-attractant peptide: inflammatory disease; neoplasms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (UPJO ) UPJOHN CO.
Hoogwerf AJ, Ledbetter
WPI; 95-082239/11.
N-PSDB; Q85370.
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26-JUL-1994; U08207.
29-JUL-1993; US-099866.
13-OCT-1993; US-136117.
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WO9504158-A.
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MCP-1; chemoattractant; heparanase; heparin; heparanarthritis; restenosis; cancer; wound healing.
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                                                       25-JUL-1989 (first entry)
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(VALS/) VAN ALSTYNE D.
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Local Similarity 91.7%;
es 11; Conservation
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No. 2.12e-02;
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2.12e-02;
2.12e-1;
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27-APR-1992;
09-MAY-1991;
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R28663 standard; Protein;
R28663;
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25-JUL-1989;
30-MAR-1989;
30-MAR-1989;
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Disclosure; fig 2; 66pp; English.

This is a human-derived monoyte chemo-attractant peptide (MCP-1) sequence MCP-1 exhibits optimal chemotactic activity at a concn. of lnM and has a mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg inflammatory disease, or for the control of neoplasms by accumulation of monocytes at the site of the infection. The corresp. DNA is obtd. by chemical synthesis, by screening reverse trascripts of mRNA from purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5.
                                                                                                                                                                                                 Disclosure; Page 43-44; 56pp; English.
An expression plasmid, pHMC076 for producing MCF(76) consisting of 76 amino acids was constructed. DNA encoding MCF(76) was prepd. using a recombinant plasmid pHMCF7.

Sequence 99 AA;
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Yoshimura T, Robinson E
WPI; 89-300683/41.
                                                                                                                                                                                                                                                                                                                                                   (DAIN ) DAINIPPON PHARM CO LTD.

FUND T, Matsuo N, Yamada M, Yamagishi J;

WPI; 92-398864/48.

N-PSDB; 030748.

Prodn. of polypeptide(s) having monocyte chemotactic activity

Prodn. of polypeptide(s) having monocyte chemotactic activity
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EICLDPKOKWVQ 12
                                               eicadpkqkwvq 84
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JP-135950.
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07-W0Y-1996.
04-WAY-1995; W0-U05668.
04-WAY-1995; W0-U05668.
(SCRI) SCRIPPS RES INST.
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(Chen AB, Miller EJ, Nagao S, Carr FK;
WPI; 92-041038/05.

New Deart-ia-
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R20237;
01-MAY-1992
                                                                    unividised SH side chain) in a solution containing a catalytic thiol, condensing the terminal groups to form an intermediate OP, in which components are linked by a beta-aminothioester bond and rearranging the bond to give a product OP linked by an amide bond. The method can be used for the production of full length proteins, which can be made into native, disulphide containing proteins by refolding and oxidisation. The method also combines chemoselective, unprotected, peptide reactions, with native peptide bond formation, increasing the size of protein that can be made by chemical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ul-MAY-1992 (first entry)
NAF(44-72) peptide inhibitor of neutrophil activating factor.
bronchitis; neutrophil chemotaxis; ARDS.
Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthesis of protein by chemical ligation of unprotected peptide(s) by reaction of N-terminal Cys with C-terminal thloester and spontaneous rearrangement of intermediate prod.

Example 3; Page 47; 61pp; English.

The present peptide, which has an amino-terminal cysteine residue, was used in a novel synthesis method, comprising the ligation of a 1st oligopeptide (OP) to a 2nd OP, end to end, to produce an OP product. This comprises mixing the 1st and 2nd OP (which have a carboxy-terminal thioester and an amino-terminal Cys with an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-JUL-1997 (first entry) interleukin-8(34-72) used in novel synthesis method. Thioester; synthesis; ligation; catalysis; thiol; condensation; link; beta-aminothioester; bond; amide; production; disulphide; refolding; oxidisation; interleukin 8; IL-8.
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W04515;
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NAF(44-72) is a preferred peptide derived from NAF which is antagonistic to NAF and has no chemotactic activity. It inhibited NAF induced migration by 34 per cent. When used with a second
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05-FEB-1990; 475658
05-FEB-1990; US-4750
                                         synthesis.
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    39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29 AA;
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75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Muir TW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 86; DB 4; Leg
Pred. No. 5.71e-02;
3; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ₽
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Query Match
Best Local Similarity

85.1%; 75.0%;

Score Pred.

No.

DB 22; 5.71e-02;

Length 39

Query Match

85.1%;

Score

86; DB 7;

Length

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IDENTIFICATION OF THE COLOR OF 
    RESULT.

ACC.

ACC
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7 03-DEC-1992; DA0528.

8 (BIOM-) BIOMEDICAL RES CENT LTD.

1 Clark-Lewis I, Moser B;

2 The winterlewin-8 analogues modified in specified region - used as prescribed and in the sequence is that of an analogue of interlewkin-8 (IL-8) comprising IL-8 residues 3-69. It is able to bind neutrophils and act as a competitive antagonist of IL-8, i.e. it can be used to treat inflammation, e.g. by intravenous injection or oral admin. It can act as a neutrophil activator and so can be used to stimulate an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R38086;
R38086;
                         for treatment of inflammaries.

Claim 19; Page 29; 47pp; English.

The sequence is that of an analogue of interleukin-8 (IL-8) compri
IL-8 residues 6-72. It is able to bind neutrophils and act as a
competitive antagonist of IL-8, i.e. it can be used to treat
inflammation, e.g. by intravenous injection or oral admin. It can
inflammation activator and so can be used to stimulate an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LT 23
R38087
R38087;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-JUN-1993.
03-DEC-1992; CA0528.
04-DEC-1991; US-801578.
(BIOM-) BIOMEDICAL RES CENT LTD.
Clark-Lewis I, Moser B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Modified human interleukin-8 analogue (3-69).
Analogues; modified; neutrophil activators; antagonists; human; competitive antagonist; IL-8; inflammation; treatment; chemotax
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Modified human interleukin 8 analogue (6-72).
Analogues; modified; neutrophil activators; antagonists; human; competitive antagonist; IL-8; inflammation; treatment; chemotax activity; stimulation; inflammatory response.
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inflammation, e.g. by intravenous act as a neutrophil activator and inflammatory response.
Sequence 67 AA;
                                                                                                                                                                                                                                                                                                                                        New interleukin-8 analogues modified in specified region - used as neutrophil activators or for blocking effect of IL-8 on neutrophil for treatment of inflammation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    inflammatory response. Sequence 67 AA;
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|:||||::|||
1 EICLDPKQKWVQ 12
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Similarity 75.0%;
9; Conservative
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Pred. No. 5.71e-02;
3; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                               on neutrophil(s)
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PN W09311159-A.

PD 10-JUN-1993.

PF 03-DEC-1991; CA0528.

PR 04-DEC-1991; US-801578.

PI (BIOM-) BIOMEDICAL RES CENT LTD.

PI (STATE-Lewis I, Moser B;

PI (STATE-Lewis I, Moser B;

PI (STATE-Lewis I) Hoser B;

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Best Local :
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The sequence is that of an analogue of interleukin-8 (IL-8) comprising IL-8 residues 5-72. It is able to bind neutrophils and act as a competitive antagonist of IL-8, i.e. it can be used to treat inflammation, e.g. by intravenous injection or oral admin. It can act as a neutrophil activator and so can be used to stimulate an inflammatory response. It also has strong chemotaxis activity and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (Blum', parameter B;
Clark Lewis I, Moser B;
WPI; 93-196997/24.
New interleukin-8 analogues modified in specified region - used as
New interleukin-8 analogues modified in specified region - used as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Modified human interleukin-8 analogue Ile5 (6-72).
Analogues; modified; neutrophil activators; antagonists; human; competitive antagonist; IL-8; inflammation; treatment; chemotax
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R38083;
13-OCT-1993 (first entry)
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Analogues; modified; neutrophil activators; antagonists; human; competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
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04-DEC-1991; US-801578.
(BIOM-) BIOMEDICAL RES
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1. No. 5.71e-02;
Mismatches 0;
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1 W09311...
2 10-JUN-1993.
3 10-JUN-1993.
4 03-DEC-1992; CA0528.
5 04-DEC-1991; US-801578.
6 04-DEC-1991; US-801578.
6 (BIOM-) BIOMEDICAL RES CENT LTD.
6 (BIOM-) BIOMEDICAL RES CENT LTD.
6 (Clark-Lewis I, Moser B;
6 WPI; 93-196997/24.
6 WPI; 93-196997/24.
6 WPI; 93-196997/24.
7 New interleukin-8 analogues modified in specified region - us neutrophil activators or for blocking effect of IL-8 on neutron for treatment of inflammation
6 Traim 9; Page 29; 47pp; English.
                                                                                                                         PESULFACE NEW YORK WAR ACC NEW ACC NEW
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R38081
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The sequence is that of an analogue of interleukin-8 (IL-8) IL-8 residues Gln5 (6-72). It is able to bind neutrophils an as a competitive antagonist of IL-8, i.e. it can be used to inflammation, e.g. by intravenous injection or oral admin. I act as a neutrophil activator and so can be used to stimulat inflammatory response.

Sequence 68 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Modified human interleukin 8 analogue Gln5 (6-72).
Analogues; modified; neutrophil activators; antagonists; human; competitive antagonist; II-8; inflammation; treatment; chemotaxis; activity; stimulation; inflammatory response.
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(BIOM-) BIOMEDICAL RES
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13-OCT-1993 (first entry)
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WPI; 93-196997/24.
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larity 75.0%;
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10-JUN-1993.
03-DEC-1992; CA0528.
04-DEC-1991; US-801578.
(BIOM-) BIOMEDICAL RES CENT LTD.
Clark-Lewis I, Moser B;
WPI; 93-196997/24.
                                                           W22675; standard; Protein; 71 AA.
W22675; standard; Protein; 71 AA.
W22675; 19-MAR-1998 (first entry)
Drol3+ chemokine beta10 or monocyte chemotactic protein 4 variant.
Human; chemokine beta10; Ctk beta10; treatment; antagonist;
solid tumour; infection; autoimmune disease; asthma; antibody;
fibrotic disease; psoriasis; neurodegenerative disease;
wound healing; haematopoiesis regulation; gene therapy;
chromosome identification; monocyte chemotactic protein 4;
Homo sapiens.
WO9731098-A1.
28-AUG-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 10; Page 29; 47pp; English.

The sequence is that of an analogue of interleukin-8 (IL-8) comprising IL-8 residues Ala4Ala5 (6-72). It is able to bind neutrophils and act as a competitive antagonist of IL-8, i.e. it can be used to treat inflammation, e.g. by intravenous injection or oral admin. It can act as a neutrophil activator and so can be used to stimulate an inflammatory response.

Sequence 69 AA;
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R38082;
13-007-1993 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New interleukin-8 analogues modified in specified region - used as neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
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Analogues; modified; neutrophil activators; antagonists; human; competitive antagonist; IL-8; inflammation; treatment; chemotax
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  neutrophil activators or for blocking for treatment of inflammation
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No. 5.71e-02
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No. 5.71e-02
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                                                                                                                                                          Prolymptide encoding chemokine beta 4 and monocyte chemotactic protein 4 - useful to treat tumours, autoimmune disease, infection, asthma and fibrosis

Example 11; Fig 5; 83pp; English.

The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) Drol3+ variant, which can be used to treat patients deficient in Ck beta10, while a Ck beta10 can be used to reduce excessive levels of Ck beta10. Ck beta10 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic diseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, regulates haematopoiesis and generates antibodies. Labelled Ck beta10 can be used to identify its cognate
                                                                                              Query Match
Best Local :
                                                                              Matches
                                                                                                                                                                      receptor, while cells expressing the receptor can be used to screen compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic syndrome, lung inflammation and atherosclerosis. Ck betail CDNA can be used to isolate genes encoding similar peptides, in gene therapy and for chromosome identification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (HUMA-) HUMAN GENOME SCI INC. Adams M. Alderson R. Applebaum Parmelee D. White J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-FEB-1996; WO-U02598.
                        45 eicadpkekwvg
  1 EICLDPKOKWVQ 12
                                                                                                Similarity
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                                                                                                                                                          71 AA;
                                                                              Conservative
                                        56
                                                                                              85.1%;
83.3%;
                                                                                              Score 86; DB 27;
Pred. No. 5.71e-02;
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Search completed: Thu Apr 1 07:36:04 1999 Job time: 24 secs.

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Nucleotide sequence of ovine interleukin 8 cDN
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Cloning of a canine gene homologous
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##molecule_type mRNA
##residues 1-103 ##label LIN
##cross-references GB:M86923; NID:g164520; P:
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 110
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alveolar macrophage chemotactic factor-I (AMCF-I)
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#formal_name Sus scrofa domestica #common_name domestic pig
30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change
23-Feb-1996
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M.J.; Weiss, D.J.; Murtaugh, M.P.
J. Blol. Chem. (1994) 269:77-85
Regulation of interleukin-8 expression in porcine
macrophages by bacterial lipopolysaccharide.
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Goodman, R.B.; Foster, D.C.; Mathewes, S.L.; Osborn, S.G
Kuijper, J.L.; Forstrom, J.W.; Martin, T.R.
Biochemistry (1992) 31:10483-10490
Molecular cloning of porcine alveolar macrophage-derived
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#journal Biochem. J. (1990) 271:797-801

#title A novel neutrophil chemoattractant generated during an
   inflammatory reaction in the rabbit peritoneal cavity in
   vivo. Purification, partial amino acid sequence and
   structural relationship to interleukin 8.

#accession S13052
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#title Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and expression in spleen cells.
#cross-references_MUID:91225489
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                  #authors Furutani, Y.; Nomura, H.; Notake, M.; Oyamada, Y.; Fukui, Yamada, M.; Larsen, C.G.; Oppenheim, J.J.; Matsushima, I #journal Biochem. Biophys. Res. Commun. (1989) 159:249-255

#title Cloning and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCAF).
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##cross-references GB:X14768; NID:g34513; PID:g34514
##experimental_source glioma cell line U-105MG
##CE I51841
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##cross-references GB:M37719; NID:g187447; PID:g487124
NCE A33476
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##cross-references GB:S71513; NID:g240867; PID:g240868
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A Chemoattractant expressed in human sarcoma cells
(tumor-derived chemotactic factor, TDCF) is identical to
monocyte chemoattractant protein-1/monocyte chemotactic
activating factor (MCP-1/MCAF).
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Adv. Exp. Med. Biol. (1991) 305:47-56
Human monocyte chemoattractant protein-1 (MCP-1).
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FEBS Lett. (1989) 244:487-493
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The human homolog of the JE gene encodes a mono
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#journal Mol. Cell. Blochem. (1993) 126:61-68

#title The expression of monocyte chemotactic protein (MCP-1) in
#cross-references MUID:94150478
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#title Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel N-terminally processed form.
#cross-references_MUID:90211336
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#accession A32396
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##residues 'X',25-99 ##label ROB
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##residues 1-99 ##label LIY
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##residues 24-28,'Q',30-99 ##label YEQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ye, O.N.; Su, G.F.; Yuan, Y.; Huang, C.F. Chinese J. Microbiol. Immunol. (1994) 14:29-32 The PCR, cloning and sequencing of human monocyte chemoattractant protein-1 (MCP-1) gene.
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#status experimental #label MAT2\,
#modified site pyrrolidone carboxylic acid (Gln) (in
mature form) #status experimental\
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Pred. No. 1.05e-06;
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                                                                              ##residues 1-99 ##label MUK ##cross-references GB:M28130; NID:g186367; PID:g186368 ##note the authors failed to translate the last thirty-six
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.FICATION #superfamily macrophage inflammatory protein
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monocyte chemoattractant protein-1 precursor - pig
#formal_name Sus scrofa domestica #common_name domestic
30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
08-Sep-1997
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interleukin-8 precursor - human
beta-thromboglobulin-like protein; fibroblast-derived
neutrophil-activating factor alpha; lung carcinoma-derived
chemotaxin; lymphocyte-derived neutrophil-activating
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Schelt, K.H.
Blochem. Blophys. Res. Commun. (1994) 199:962-968
Porcine luteal cells express monocyte chemoattractant protein-1 (MCP-1): Analysis by polymerase chain reaction
                                                                                                                                                                                                            Mukaida, N.; Shiroo, M.; Matsushima, K.
J. Immunol. (1989) 143:1366-1371
Genomic structure of the human monocyte-derived neutrophil
chemotactic factor IL-8.
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A37034; JL0041; A32791; S37634; PL0107; A28598; A27488;
A39960; A60401; A60591; S18827; S04216; A60567; A60847;
S15417; S03975; I54560; I55992; I37902; S67519
Matsushima, K.; Morishita, K.; Yoshimura, T.; Lavu, Kobayashi, Y.; Lew, W.; Appella, E.; Kung, H.F.;
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#title Molecular cloning of a human monocyte-derived neutrophil chemotactic factor (MDNCF) and the induction of MDNCF mRNA by interleukin 1 and tumor necrosis factor.

#cross-references MUID:88258376
#accession
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#title Purification and partial primary sequence of a chemotactic protein for polymorphonuclear leukocytes derived from hum #cross-references MUID:89279141
#accession PL0107
                 #cross-references MUID:88097462
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#cross-references_MUID:89313739
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##residues 23-32,'XR',35,'X',37-52,'L',54 ##label
##rexperimental_source lung giant cell carcinoma LU65C
##CE A28598
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##residues 28-99 ##label GRE
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##cross-references EMBL:Z11686; NID:g33958; PID:g33959
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##cross-references EMBL:Y00787; NID:g34518; PID:g34519
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                                                                                                                                                                                                                                                                                                           Walz, A.; Peveri, P.; Aschauer, H.; Baggiolini, M. Biochem. Biophys. Res. Commun. (1987) 149:755-761 Purification and amino acid sequencing of NAF, a novel neutrophil-activating factor produced by monocytes.
                                                                                      Yoshimura, T.; Matsushima, K.; Tanaka, S.; Robinson, E.A.; Appella, E.; Oppenheim, J.J.; Leonard, E.J. Proc. Natl. Acad. Sci. U.S.A. (1987) 84:9233-9237 Purification of a human monocyte-derived neutrophil
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Mol. Cell. Biol. (1989) 9:1946-1957
Regulation of the mRNA for monocyte-derived
neutrophil-activating peptide in differentiating HL60
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                                        chemotactic factor that has peptide sequence similarity to other host defense cytokines.
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##experimental_source dermal fibroblasts
#mote a minor component of this material (15%) includes an
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##residues 28-47 ##label VA3
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Car, B.D.; Baggiolini, M.; Walz, A. Biochem. J. (1991) 275:581-584 Formation of neutrophil-activating peptide
                                                                                                                                                                                Van Damme, J.; Van Beeumen, J.; Opdenakker, G.; Billiau, A. J. Exp. Med. (1988) 167:1364-1376
A novel, NH-2-terminal sequence-characterized human monokine possessing neutrophil chemotactic, skin-reactive, and
                                                                                                                                                                                                                                                                                                                                                                                                                          Yoshimura, T.; Robinson, E.A.; Appella, E.; Matsushima, K.; Showalter, S.D.; Skeel, A.; Leonard, E.J. Mol. Immunol. (1989) 26:87-93
Three forms of monocyte-derived neutrophil chemotactic factor (MDNCF) distinguished by different lengths of the amino-terminal sequence.
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Generation of interleukin-8 by plasmin from AVLPR-interleukin-8, the human fibroblast-derived neutrophil chemotactic factor.
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Opdenakker, G.; Billiau, A.
Eur. J. Immunol. (1989) 19:1189-1194
The chemotactic activity for granulocytes produced by virally infected fibroblasts is identical to monocyte-derived
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IL-lalpha or tumor necrosis factor-alpha stimulate release
three NAP-1/IL-8-related neutrophil chemotactic proteins
human dermal fibroblasts.
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the forms starting from positions 21, 23, and
represented 8%, 47%, and 45%, respectively,
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Neutrophil attractant protein-1 - guinea pig
#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
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Immunol. Lett. (1990) 24:165-170
Coding region structure of interleukin-8 gene of human lung
giant cell carcinoma LU65C cells that produce
LUCT/interliukin-8: homogeneity in interleuki-8 genes.
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J. Immunol. (1993) 151:6225-6236
cDNA cloning and expression of guinea pig neutrophil
attractant protein-1 (NAP-1): NAP-1 is highly conserved in
                                                                                                                                                                                                                                                             NAP-1
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#accession A39296
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##residues 50-68, 7x', 70-74, 'X', 76 ##label WE2
##residues 10-68, 7x', 70-74, 'X', 76 ##label WE2
##residues 10-68, 7x', 70-74, 'X', 76 ##label WE2
##residues 10-68, 7x', 70-74, 'X', 76 ##label WE2
##residues 10-74, 'X', 76 ##label WE2
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##residues 1-99 ##label WEM
##residues 68:M84602; GB:M85264; NID:g163394; PID:g163395
##cession B39296
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##residues 1-99 ##label WEM
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JC2336
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26/1; 65/2
*superfamily macrophage inflammatory protein
*length 99 *molecular-weight 11114 *checksum
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monocyte chemoattractant protein-1 - bovine
#formal_name Bos primigenius indicus #common_name zebu (
20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
03-May-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gene expression and cDNA cloning identified a major basic protein constituent of bovine seminal plasma as bovine monocyte-chemoattractant protein-1 (MCP-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Wempe, F.; Kuhlmann, J.K.; Scheit, K.H.
Biochem. Biophys. Res. Commun. (1994) 202:1272-1279.
Characterization of the bovine monocyte chemoattractant
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03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
31-Oct-1997
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146857  #type complete
monocyte chemoattractant protein-1 - rabbit
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product monocyte chemoattractant protein 1 #status
predicted #label MAT\
#binding_site carbohydrate (Asn) (covalent) #status
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Pred. No. 1.27e-05;
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Pred. No. 1.27e-05;
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(1994) 202:1272-1279
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#accession I46857
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##residues
##residues
1-109 ##label MIN
##cross-references EMBL:X71087; NID:9288396; PID:9288397
##Cross-references EMBL:X71087; NID:9288396; PID:9288397
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##cross-references GB:M57440; NID:g165469; PID:g165470
FICATION #superfamily macrophage inflammatory protein
W #length 125 #molecular-weight 13776 #checky
  me GDB:SCYA7; SCYA6; MCP-3 ##cross-references GDB:138473; OMIM:158106
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Local Similarity 90.9%;
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Molecular cloning of MCP-3: a human monocyte-derived monocytchemoattractant protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A54678 #type complete
monocyte chemotactic protein 3 precursor -
monocyte chemotactractant protein MCP-3
#formal_name Homo sapiens #common_name man
28-Oct-1994 #sequence_revision 28-Oct-1994
                                                                                                                                                                                                                                                                                                                                                                   Biochem. Biophys. Res. Commun. (1993) 191:535-542
Human monocyte chemotactic protein-3 (MCP-3): Molecular
cloning of the cDNA and comparison with other chemoki
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The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome
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J. Immunol. (1991) 146:3483-3488
Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and expression in spleen cells.
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Pred. No. 2.07e-05;
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24-99
                                                                          #journal J. Immunol. (1993) 150:5025-5032

#title cDNA cloning of guinea pig monocyte chemoattractant protein-1
and expression of the recombinant protein.

#cross-references MUID:93267104

#accession 148147
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#title
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#introns 36/1; 75/2
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##residues 1-99 ##label HOS
##experimental_source corpus luteum
##molecule_type mRNA
#residues 1-120 ##label
##cross-references GB:L04985;
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Similarity 83.3%;
10; Conservative
                                                                                                                                                                                                                            148147 #type complete
monocyte chemoattractant protein-1 - guinea pig
#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
09-May-1997
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monocyte chemoattractant protein-2 - pig
#formal_name Sus scrofa domestica #common_name
24-Feb-1995 #sequence_revision 24-Feb-1995 #tex
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Scheit, K.H.

Biochem. Biophys. Res. Commun. (1994) 205:148-153

Borcine lutteal cells express monocyte chemoattractant protein-2 (MCP-2): Analysis by cDNA cloning and northern
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Pred. No. 3.37e-05;
0; Mismatches 2
  NID:g349820; PID:g34982
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Best Local Similarity 66.7%;
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##cross-references EMBL:Z75668; NID:g1531982; PID:e251275; PID:g1531983
##experimental_source dermal fibroblast
This protein has eosinophil specific chemotatic activity.
                                                                                  ##residues 1-89 ##label NAG 1-89 ##cross-references GB:D21072; NID:g413905; PID:d1005177; PID:g468457
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#superfamily macrophage inflammatory protein
#length 120 #molecular-weight 13741 #checksum
 Honjo, T.
Science (1993) 261:600-603
Signal sequence trap: a cl
                                                 Tashiro, K.; Tada, H.; Heilker,
                                                                                                                                                                                 Nagasawa, T.; Kikutani, H.; Kishimoto, T. Proc. Natl. Acad. Sci. U.S.A. (1994) 91:2305-2309 Molecular cloning and structure of a pre-B-cell
                                                                                                                                                                                                                                                                                        #153497 #type complete
pre-B-cell growth-stimulating factor precursor - mouse
#formal_name Mus musculus #common_name house mouse
02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change
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Pred. No. 8.91e-05;
trap: a cloning strategy
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Exp. Cell Res. (1994) 215:284-293

#title Molecular cloning of TPAR1, a gene whose expression is repressed by the tumor promoter 12-0-tetradecanoylphorbol 13-acetate (TPA).

#cross-references MUID:95073497
                                                                       Honjo, T.

#journal Science (1993) 261:600-603

#title Signal sequence trap: a cloning strategy
proteins and type I membrane proteins.

#cross-references MUID:93342488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            proteins and type I membrane proteins.
#cross-references MUID:93342488
#accession I59582
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##residues 1-89 ##label F
##cross-references GB:L12029;
            ##molecule_type mRNA
##residues 1-93 ##label RES
                                          ##status
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##cross-references GB:L12030;
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Local Similarity 58.3%;
hes 7; Conservative
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Similarity 58.3%;
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cytokine
#length 89 #molecular-weight 10032 #checksum
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#formal_name Mus musculus #common_name house mouse
02-Aug-1996 #sequence_revision 02-Aug-1996 #text_c
28-Feb-1997
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interleukin-8 homolog - mouse
#formal_name Mus sp. #common_name mouse
02-Aug-1996 #sequence_revision 02-Aug-1996
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Pred. No. 3.76e-04;
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Best Local Similarity 58.3%;
                                                                                                                                             Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                        #title Constitutive and allergen-induced in the guinea pig lung. #cross-references MUID:95173589 #accession I48099
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                                                                                                                                                                                   ##cross-references EMBL:U18941; NID:g687655; PID:g687656
FICATION #superfamily macrophage inflammatory protein
# #length 96 #molecular-weight 10753 #checksum
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##molecule_type mRNA
##FORTAL--
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##residues 1-93 ##label
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                                                                        ICLDPKQKWVQ 12
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JC2478
eotaxin
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cytokine SDF-1-beta - human
#formal_name Homo sapiens #common_name man
21-Dec-1996 #sequence_revision 06-Jun-1997
17-Jul-1998
                                                                                                                                                                                                                                                                                                                                 Leder, P.
J. Exp. Med. (1995) 181:1211-1216
                                                                                                                                                                                                                                                                                                                                                                                                                       eotaxin precursor - guinea pig
#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
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#length 93
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larity 81.8%;
Conservative
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 #type complete
rat
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Pred. No. 6.04e-04;
0; Mismatches 2;
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Pred. No. 3.76e-04
4; Mismatches
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Pred. No. 3.76e-04;
4; Mismatches 1;
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Best Local :
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Best Local Similarity 66.7%;
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#cross-references_MUID:95298037
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[FICATION #superfamily macrophage inflammatory protein
#Y #length 92 #molecular-weight 10335 #checksu
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WI This protein is identified as a potent eosinophil c
FICATION #superfamily macrophage inflammatory protein
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##residues 1-96 ##label JOS
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Local Similarity 81.8%;
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#type complete
monocyte chemotactic protein-2 - human
#formal_name Homo sapiens #common_name man
02-May-1997 #sequence_revision 18-Jul-1997 #t
31-0ct-1997
JC5295
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Biochem. Biophys. Res. Commun. (1994) 205:788-794
Eotaxin: Cloning of an eosinophil chemoattractant cytokine and increased mRNA expression in allergen-challenged guinea-pig lungs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          152322 #type complete
macrophage inflammatory protein-lalpha - rat
#formal_name Rattus norvegicus #common_name Norway rat
29-May-1998 #sequence_revision 29-May-1998 #text_change
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21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change
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#product eotaxin #status predicted #label MAT\
#binding_site carbohydrate (Thr) (covalent) #status
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Pred. No. 9.69e-04;
2; Mismatches 2
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##cross-references GB:Y10802, ID:e294088; PID:g1924938
##scross-references GB:Y10802, ID:g1924937; PID:e294088; PID:g1924938
##experimental_source bone marrow
This protein belongs to the beta-chemokine family which is one of
the major HIV-suppressive factors. It plays roles in autoimmune
processes such as multiple sclerosis and rheumatoid arthritis and
in tumor biology, and contribute to the trafficking and
recuitment of the responsive cells.
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IFICATION #superfamily beta-thromboglobulin

#length 103 #molecular-weight 11090 #chec
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Local Similarity 66.7%;
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Local Similarity 58.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Proc. Natl. Acad. Sci. U.S.A. (1987) 84:6715-6719 Constitutive expression of a gene encoding a polypeptide homologous to biologically active human platelet prote. Rous sarcoma virus-transformed fibroblasts virus transformed fibroblasts.
                 #formal_name Gallus gallus #common_name chicken 19-Nov-1988 #sequence_revision 19-Nov-1988 #tex 20-Mar-1998
                                                                                                  A26736 #type complete transformation-induced pro
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RSV-Induced protein - chicken
#formal_name Gallus gallus #common_name chicken
13.Sep-1996 #sequence_revision 13-Sep-1996 #text_change
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Pred. No. 2.47e-03;
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Pred. No. 1.55e-03;
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                                                                                                  protein precursor (clone
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #Journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:3738-3742
#title Cloning and expression of JE, a gene inducible by
platelet-derived growth factor and whose product has
cytokine-like properties.
#cross-references MUID:88234501
#accession A30209
                                                     Query Match
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*Bauthors Sugano, S.; Stoeckle, M.Y.; Hanafusa, H.

*#authors Sugano, S.; Stoeckle, M.Y.; Hanafusa, H.

*#authors Cell (1987) 49:321-328

*#title Transformation by Rous sarcoma virus induces a novel

**with homology to a mitogenic platelet protein.

*#cross-references MUID:87187628

*#accession A26736
                                                                                                                                                                                                                       #introns
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                                                                                                                                                                                                                                                                         ##molecule_type DNA; mRNA
##residues 1-148 ##label
##cross-references GB:J04467;
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##cross-references GB:M16199; NID:g211735; P
#FICATION #superfamily beta-thromboglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ##residues 1-148 ##label ROL
##cross-references GB:M19681; NID
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                                                     Local Similarity
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Local Similarity 66.7%;
nes 8; Conservative
73 EVCADPKKEWVQ 84
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Platelet-derived growth factor-inducible gene JE is a member of a family of small inducible genes related to platelet
                                                                                                                                                                                                                                                                                                                                  A44773
                                                                                                                                                                                                                                                                                                                                                                                                   Kawahara, R.S.; Deuel, T.F.
J. Biol. Chem. (1989) 264:679-682
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#formal_name Mus musculus #common_name house mouse
01-Dec-1989 #sequence_revision 01-Dec-1989 #text_change
                                                                                                         predicted
#length 148 #mo
                                                                                                                                                                             cytokine; glycoprotein
                                                                                                                                                                                                  #superfamily macrophage
                                                                                                                                                                                                                     JE
26/1; 65/2
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A30209; A44771; A30861
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                                    Conservative
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#product transformation-induced protein #status
predicted #label MAT
jth 103 #molecular-weight 11056 #checksum 8297
                                                                                                                                             #binding_site carbohydrate (Asn)
                                                     72.3%;
66.7%;
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                                                                                                          #molecular-weight 16326
                                Score 73; DB 2; Pred. No. 3.93e-03
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Pred. No. 2.47e-03
1; Mismatches
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NID:g193488; PID:g387169
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#title
                                                                                                                    #authors Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes
are members of a new superfamily that includes leukocyte
and fibroblast-derived inflammatory agents, growth factors,
and indicators of various activation processes.

#cross-references_MUID:89093958
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#accession S11685
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#accession A32393
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#residues 1-92 ##label DAV
##cross-references EMBL:X12531; NID:g53122; PID:g53123
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##cross-references EMBL:X53372; NID:g54062; PID:g297531
##note the authors' translation of the nucleotide sequence
##note differs at several positions from the sequence give
                                                                  ##molecule_type mRNA
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                  ##residues 1-21,'L',23-61,'A',63-92 ##label BRO ##cross-references GB:M23447; NID:g533240; PID:g5332
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Cloning and characterization of a cDNA for murine macrophage
inflammatory protein (MIP), a novel monokine with
inflammatory and chemokinetic properties.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Davatelis, G.; Tekamp-Olson, P.; Luedke, C.; Gallegos, C.; Coit, Cerami, A.
                                                                                                                                                                                                                                                                                                                                                                                                         J. Exp. Med. (1989) 170:2189
erratum
A53885
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kwon, B.S.; Weissman, S.M.
Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967
cDNA sequence of two inducible T-cell genes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Davatelis, G.;
Luedke, C.; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Grove, M.; Lowe, S.; Graham, G.; Pragnell, I.; Plumb
Nucleic Acids Res. (1990) 18:5561
Sequence of the murine haemopoletic stem cell
inhibitor/macrophage inflammatory protein 1-alpha
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17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change
08-Sep-1997
S11085; A32393; S04533; A53885; A30552; PS0303; A27596;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; Tekamp-Olson, P.; Wolpe, S.D.; Hermsen, K.;
Gallegos, C.; Coit, D.; Merryweather, J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P.; Wolpe, S.D.; Hermsen, K.; Coit, D.; Merryweather, J.;
                  PID:g533241
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Matches
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#title
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#journal J. Exp. Med. (1988) 167:570-581
#title Macrophages secrete a novel heparin-binding protein with inflammatory and neutrophil chemokinetic properties.

#cross-references MUID:88154745
                       #cross-references MUID:90174947
#accession S07723
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#accession I56104
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##residues 24-33,'XX',36-42 ##label
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##molecule_type DNA
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Local Similarity 58.3%;
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J. Immunol. (1991) 146:4031-4040
Genomic structure of murine macrophage inflammatory
protein-1-alpha and conservation of potential regulatory
sequences with a human homolog, LD78.
                                                                                                                                                                                                                        monocyte chemoattractant protein-1
#formal_name Rattus norvegicus #common_name Norway rat
29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Davatelis, G.; Wolpe, S.D.; Masiarz, F.; (
                                                                             Timmers, H.T.M.; Pronk, G.J.; Bos, J.L.; van der Eb, A.J. Nucleic Acids Res. (1990) 18:23-34
Analysis of the rat JE gene promoter identifies an AP-1 binding site essential for basal expression but not for TPA
                                                                                                                                                                S07723; JN0128
S07723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          #domain signal sequence #status predicted #label
#product macrophage inflammatory protein #status
experimental #label MAT
#length 92 #molecular-weight 10345 #checksum 5009
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                                                                                                                                                                                                                                                                              $07723 #type complete immediate-early serum-responsive protein JE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 69; DB 2; Let Pred. No. 2.44e-02; 3; Mismatches 2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 92;
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                                                                                                                                                                                                                                                                                        rat
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GENETICS
#introns
CLASSIFICATION
FEATURE
1-23
24-148
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#authors
#journal
#title
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Search completed: Thu Apr 1 07:35:21 1999 Job time: 17 secs.
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                                                                                                                                                                                                                                                     SUMMARY
                                                                                                                                                           Query Match 68.3%; Score 69; DB 2; Length 148; Best Local Similarity 66.7%; Pred. No. 2.44e-02; Matches 8; Conservative 1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    #authors Yoshimura, T.; Takeya, M.; Takahashi, K.
#journal Biochem. Biophys. Res. Commun. (1991) 174:504-509
#title Molecular cloning of rat monocyte chemoattractant protein-1
(MCP-1) and its expression in rat spleen cells and tumor
cell lines.
#cross-references MUID:91128376
#accession JN0128
##molecule_type mRNA
##roofines_type mRNA
##roofines_type mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               #*residues 1-148 ##label TIM
##cross-references EMBL:X17053; NID:g55530; PID:g55531
ENCE JN0128
                                                                                                                                                                                                                                                                                                                                                                                                             73 EICADPNKEWVQ 84
||| ||: ||!
1 EICLDPKQKWVQ 12
                                                                                                                                                                                                                                          #domain signal sequence #status predicted #label SIG\
#product immediate-early serum-responsive protein JE
#status predicted #label MAT
#length 148 #molecular-weight 16460 #checksum 4876
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MPsrch\_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:33:48 1999; MasPar time 2.31 Seconds
Tabular output not generated. 139.448 Million cell updates/sec

Title: VUS-08-927-939-10
Pescription: (1-12) from US08927939.pep
Parfect Score: 101
Sequence: 1 EICLDPKQKWVQ 12
Scoring table: PAM 150
Gap 15

Searched: 74019 seqs, 26840295 residues

Post-processing: Minimum Match 0% Listing first 100 summaries

Database: swiss-prot36 1:swissprot

Statistics: Mean 26.088; Variance 33.350; scale 0.782

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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		<b>P</b>			SUMMARIES			
Result		Query						
No.	Score	Match 1	Length 1	BB	IĐ	Description	Pred. No.	
1	95	94.1	101	μ,	IL8_SHEEP	INTERLEUKIN-8 PRECURSO	2.66e-09	
N	95	94.1	101		IL8_CANFA	8	.66e-	
ω	95		103	سر	IL8_PIG		2.66e-09	
4	92	91.1	101	μ.	IL8_BOVIN	INTERLEUKIN-8 PRECURSO	1.51e-08	
U	92		101	H	IL8_RABIT		1.51e-08	
0	90	9	99	سر	MCP1_HUMAN	MONOCYTE CHEMOTACTIC P	4.74e-08	
. 7	90	9	101	Н	MCP1_CANFA	MONOCYTE CHEMOTACTIC P	4.74e-08	
. &	89		99	۲	MCP1_PIG		'n	
, 6	87		99	Н	MCP2_BOVIN	MONOCYTE CHEMOTACTIC P	2.60e-07	
10	86	85.1	98	<b>ب</b>	MCP4_HUMAN	MONOCYTE CHEMOTACTIC P	4.55e-07	
11	86	5	99	۳	IL8_HUMAN	INTERLEUKIN-8 PRECURSO	4.55e-07	
12	86	.5	101	سو	IL8_CAVPO	INTERLEUKIN-8 PRECURSO	4.55e-07	
13	о О		99	ы	MCPA_BOVIN	MONOCYTE CHEMOTACTIC P	7.97e-07	
14	84	ω	125	ب	MCP1_RABIT	MONOCYTE CHEMOTACTIC P	1.39e-06	
15	83	2	97	۳	EOTA_MOUSE	EOTAXIN PRECURSOR (EOS	2.42e-06	
16	8 3	2	97	<b>ب</b>	EOTA_RAT	EOTAXIN PRECURSOR (EOS	2.42e-06	
17	8	2	99	ш	MCP3_HUMAN	MONOCYTE CHEMOTACTIC P	2.42e-06	
14	82	۲	97	μ	EOTA_HUMAN	EOTAXIN PRECURSOR (EOS	4.21a-06	
19	82	٣	101	ب	IL8_CERTO	INTERLEUKIN-8 PRECURSO	4.21e-06	
20	82	۳	101	Н	IL8_MACMU	INTERLEUKIN-8 PRECURSO		
21	81	0	99	ب	MCP2_PIG	MONOCYTE CHEMOTACTIC P	7.29e-06	
22	82	80.2	120	ш	MCP1_CAVPO	MONOCYTE CHEMOTACTIC P	7.29e-06	
. 23	79	α.	104	μ	MCP5_MOUSE	MONOCYTE CHEMOTACTIC P	2.17e-05	

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Best Local S
Matches 1
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-i- SUBUNIT: HOWDDIMER.
-i- SIMILARITY: BELONGS TO THE IN:
C-X-C) (CHEMOKINE CXC).
EMBL; X78306; G463254; -
EMBL; X78436; G463254; -
EMBL; S744456; G786591; -
PIR: S42496; S42496
HSSP; P10145; 3118.
HSSP; P10145; 3118.
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SEQUENCE FROM N.A.

MEDLINE; 95137691.

MEDLINE; 95137691.

SEOW H.F., YOSHIMURA T., WOOD P.R., COLDITZ I.G.;

IMMUNOL, CELL BIOL. 72:398-405(1994).

-I- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS, BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
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98
99
100
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P41324;
01-FEB-1995
01-FEB-1995
01-NOV-1995
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P36925;
O1-JUN-1994
O1-JUN-1994
O1-NOV-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISULFID
DISULFID
SEQUENCE
SEQUENCE FROM N.A.
MEDLINE; 94010328.
ISHIKAWA J., SUZUKI S.,
GENE 131:305-306(1993).
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CHAIN
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GENE 150:367-369(1994).
[2]
                                                                                                                        EUTHERIA;
                                                                                                                                                                       CANIS FAMILIARIS (DOG).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. MEDLINE; 95121931.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EUTHERIA;
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|:||||:||||
1 EICLDPKQKWVQ 12
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Local Similarity 83.3%;
nes 10; Conservative
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1 22 BY SIMILARITY.
23 101 INTERLEUKIN-8.
34 61 BY SIMILARITY.
36 77 BY SIMILARITY.
36 77 BY SIMILARITY.
101 AA; 11292 MW; 5A574527 CRC32;
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101 /
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(REL. 31, LAS)
(REL. 32, LAS)
(REL. 32, LAS)
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(REL.
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                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
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556
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                             HOTTA
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1A12_LYCES
NUMB_DROME
MEM2_RAT
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Pred. No. 2.66e-09;
2; Mismatches 0
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                                                                                                                                                                       VERTEBRATA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                             HIROTA
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1-AMINOCYCLOPROPANE-1-
NUMB PROTEIN.
MEMBRANE-ASSOCIATED PR
                       Υ.,
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                                                                                                                                                                          TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIGNAL
                             MIZUNO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          J.F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                          s:
                                                                                                                                                                          MAMMALIA;
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                             SUZUKI
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2.84e+01
2.84e+01
2.84e+01
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SO TITIES OF REAL PROPERTY OF THE PROPERTY OF 
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Best Local :
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J. CLIN. INVEST, 95:89-103(1994)

-I-FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT A:
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES: IT
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEI
RESPONSE TO AN INFLAMMATORY STIMULUS.

-I- SUBUNIT: HOMODIMER.
-I- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FI
C-X-C) (CHEMOKINE CXC).
EMBL; D28772; G517100; -..
EMBL; D10308; G607814; -..
PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             [2]
SEQUENCE FROM N.A.
TISSUE-LYMPH NODE;
MEDLINE; 95127913.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     IL8_PIG S
P26894; P22951;
01-AUG-1991 (REL
01-AUG-1992 (REL
01-OCT-1996 (REL
INTERLEUKIN-8 PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHAIN
DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MATSUMOTO Y., MOHAMED A., ONODERA T., KATO H., OHASHI T.,
GOITSUKA R., TSUJIMOTO H., HASEGAWA A., FURUSAWA S., YOSHIHARA K.,
ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.;
CYTOKINE 6:455-461(1994).
              GOODMAN R.B., FOSTER D.C., MATHEWES FORSTROM J.W., MARTIN T.R.; BIOCHEMISTRY 31:10483-10490(1992).
                                                                                                                                                                                                                                                      MEDLINE; 94103307.
LIN G., PEARSON A.E., SCA
                                                                                                                                                                                                                                                                                                                                                        SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHC
EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KUKIELKA G.L., SMITH W.C.,
MENDOZA L.H., DALY T.J., H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-MONGREL;
BIOCHEMISTRY [4]
                                                                              MEDLINE;
                                                                                                                                                                            SEQUENCE FROM N.A. SANJANWALA M.;
                                                                                                                                                                                                                                                                                               MEDLINE; 94103307.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIGNAL
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                                                                                                                SEQUENCE FROM N.A.,
                                                                                                                                                         SUBMITTED (JUL-1991)
                                                                                                TISSUE-LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
nes 10; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          75 EVCLDPKEKWVQ
                                                                                                                                                                                                                                        BIOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 EICLDPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                      (AMCF-I).
                                                                                                                                                                                                                                        CHEM.
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                                                                           93041741.
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                                                                                                                                                                                                                                                                                                                                                                                                                                               (REL. 19, CREATED)
(REL. 23, LAST SEQUENCE UPDATE)
(REL. 34, LAST ANNOTATION UPDATE)
(REL. 34, LAST ANNOTATION UPDATE)
-8 PRECURSOR (IL-8) (ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               101 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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                                                                                                                                                                                                                                        269:77-85(1994).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE-JUGULAR VEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SMALL_CYTOKINES_CXC; 1.
XIS; INFLAMMATORY RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94.1%;
83.3%;
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101
61
77
                                                                                                                                                                                                                                                                                                                                                                             CHORDATA;
                                                                                                                AND
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                                                                                                                                                                                                                                                                            SCAMURRA
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                                                                                                                                                       EMBL/GENBANK/DDBJ
                                                                                                                SEQUENCE
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INTERLEUKIN-8.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 95;
                                                                                                                                                                                                                                                                                                                                                                             VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                               R.W.,
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B.J., YOUKER K.A.,
                                                                                                                OH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    95; DB 1; 1
No. 2.66e-09
                                                         S
                                                                                                                  26-45
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                                                                                                                                                                                                                                                                               ZHOU
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                                                                                                                                                         DATA
                                                                                                                                                                                                                                                                          Υ.,
                                                                                                                                                                                                                                                                                                                                                                           TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ALPHA FAMILY (SMALL CYTOKINE
                                                         OSBORN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length• 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                               BAARSCH M.J.,
                                                                                                                                                         BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IT IS ALSO INVOLVED SEVERAL CELL TYPES :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A.M.
                                                         S
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                                                         .
G.
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                                                         KUIJPER
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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Best Local
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EMBL; X61151; G516197; -.

EMBL; M99367; G1235612; -.

PIR; A44253; A44253;

PIR; A39819; A39819.
                                                                                                                                                                                                                                                                                                                                                                                             DISULFID
DISULFID
CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CYTOKINE;
SIGNAL
CHAIN
                                                                                                                   MICROB.
                                                                                                                                                                                                                                01-NOV-1997
01-NOV-1997
01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GOODMAN R.
SUBMITTED
                                         PROSITE; PS00471; SMALL_C
                                                                                                                                                                                                                                                           IL8_BOV
P79255;
                                                                                                                                    CAMPOS M.,
                                                                                                                                                                                           BOS TAURUS EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                  CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GODMAN R.B., FORSTROM J.W., OSBORN S.G., CHI E.Y., J. BIOL. CHEM. 266:8455-8463(1991).

-i- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTI BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVEN
   DISULFID
                                                                     <del>-</del>
                                                                              -
                                                                                                                                               MORSEY
                                                                                                                                                     SEQUENCE FROM N.A. MEDLINE; 96304552.
                                                                                                                                                                                   EUTHERIA; ARTIODACTYLA
                                                                                                                                                                                                                       INTERLEUKIN-8
                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN=YORKSHIRE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REVISION TO
                                                                                                                                                                                                                                                                                                                   75 EVCLDPKEKWVQ
                                                                                                                                                                                                                                                                                                                                                        Local
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                                                         FOS. M., BABIUK L.A.;

FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,

BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN

NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN

RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).

SUBUNIT: HOMODIMER (BY SIMILARITY).

SUBUNIT: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INDUCTION: BY LIPOPOLYSACCHARIDE SIMILARITY: BELONGS TO THE INTERC C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                     BOVIN
                                                                                                                                                                                                                                                                                                          EICLDPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                   P10145; 31L8.
TE; PS00471; SMALL_CYTOKINES_CXC;
INE; CHEMOTAXIS; INFLAMMATORY RES
                                                                                                                                            Σ.
                                                                                                                                                                                                                                                                                                                                               Similarity
10; Conse
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w
                                CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (MAR-1996)
                                                                                                                                                                                           (BOVINE).
METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                  1
26
34
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33
37
103
                                                                                                                                                                                                                                (REL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23
                                                                                                                                           POPOWYCH Y., KOWALSKI J.,
                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                       PRECURSOR
                                                                                                                                                                                                                                                                                                                                                                                    AA;
                                                                                                                                                                                                                                                                     STANDARD;
NAXIS; INFLAMMATORY RESPONSE; S
PAXIS; INFLAMMATORY RESPONSE; S
2 SIMILARITY
101 INVERLEUXIN-8.
61 BY SIMILARITY.
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103
61
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87
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                                                                                                                                                                                                                               LAST SEQUENCE UP
                                                                                                                                                                                                                                                   CREATED)
                                                                                                                                                                                                                       (IL-8)
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                                                                                                                                                                                                                                                                                                                                             Pred.
2; M
                                                                                                                                                                                                                                                                                                                                                                Score 95;
                                                                                                                                                                                                                                                                                                                                                                                          INTERLEUKIN-8.
BY SIMILARITY.
BY SIMILARITY.
RC -> CR (IN RE-
K -> KK (IN RE-
                                                                                                                                                                                           VERTEBRATA;
                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                   A012D59D
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                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                           > CR (IN REF. 5).
KK (IN REF. 2).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESPONSE;
                                                                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                                                                                                                                        2.66e-09
                                                                                                                                                                                                                                UPDATE;
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                                                                                                                                             GERLACH
                                                                                                                                                                                                                                                                                                                                                                                   CRC32
                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                           TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL.
                               SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                Length 103;
                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                            G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEVERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IT IS ALSO INVOLVED IN
                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                            GODSON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MARTIN T.R.;
                                                                                                                                                                                           MAMMALIA;
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RESULT
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AC P.
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DT 0.
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Best Local S
Matches 1
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Best Local
                                                                                                            MCP1_HUMAN
P13500;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DISULFID SEQUENCE
              01-JAN-1990 (REL. 13, CREATED)
01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
DISULFID
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BEAUBIEN B.C., COLLINS P.D., JOSE P.J., TOTTY N.F., HSUAN J.,
BEAUBIEN B.C., COLLINS T.J.;
WATERFIELD M.D., WILLIAMS T.J.;
BIOCHEM. J. 271:797-801(1990)
-i- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
-i- BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
-i- SUBUNIT: HOMODIMER.
-i- SUBUNIT: HOMODIMER.
-I- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
-I- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
-I- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
-I- SIMILARITY: ACCESS.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IL8_RABIT P19874;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-FEB-1991 (REL. 17, CREATED)
01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT/ACTIVATION
PROTEIN-1) (NAP-1) (PERMEABILITY FACTOR 1) (RPF1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN-NEW ZEALAND WHITE;
MEDLINE; 91225489.
YOSHIMURA T., YUHKI N.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORYCTOLAGUS CUNICULUS (RABBIT).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; M57439; G165553; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN-NEW MEDLINE; 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IL8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HSSP; P10145;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PIR; S13052; S13052.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 23-53.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EUTHERIA; LAGOMORPHA.
                                                                                                                                                                                                                                                                             75
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                                                                                                                                                                                                                               EICLDPKQKWVQ
                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0145; 3II8.
0145; 3II8.
PS00471; SMALL_CYTOKINES_CXC; 1.
PS00471; INFLAMMATORY RESPONSE;
                                                                                                                                                                                                                                                                                                                          10;
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101 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZEALAND WHITE; TISSUE=PERITONEAL CAVITY;
                                                                                                                                                                                                                                                                                                                                                                                                                   101 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    146:3483-3488(1991)
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36
50
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101
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75.0%;
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11291 MW;
                                                                                                                                                                                                                                                                                                                                              91.1%;
83.3%;
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                                                                                                                                                                                                                                                                                                                      Score 92; DB 1; 1
Pred. No. 1.51e-08;
2; Mismatches (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 92; DB 1; I
Pred. No. 1.51e-08;
3; Mismatches (
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BY SIMILARITY.
BY SIMILARITY.
K -> I (IN REF.
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OE39C526 CRC32;
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REPRESENTATION OF THE PRESENTATION OF THE PRES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. MEDLINE; 90290466. SHYY Y.J., LI Y.S., 1 BIOCHEM. BIOPHYS. RE
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FEBS LET
                                                                 MEDLINE; 96234959.
HANDEL T.M., DOMAI
BIOCHEMISTRY 35:65
                                                                                                                                                                                                                                                                         MEDLINE; 91312872.
GRONENBORN A.M., CLORE G.M.;
PROTEIN ENG. 4:263-269(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE OF 24-99.
MEDLINE: 89184525.
ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA SHABANOWITZ J., HUNT D.F., APPELLA E.;
PROC. NATL. ACAD. SCI. U.S.A. 86:1850-1854(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. MEDLINE; 91207938. CHANG H.C., HSU F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE; 90097880.
ROLLINS B.J., STIER P., ERNST T.,
MOL. CELL. BIOL. 9:4687-4695(1989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FURUTANI Y., NOMURA H., LARSEN C.G., OPPENHEIM BIOCHEM. BIOPHYS. RES.
EFFECT OF DELETION OF N-TERMINAL RESIDUES. MEDLINE; 96195223.
                                                                                                                                                                                                              X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
MEDLINE; 97143315.
                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE OF 29-53 AND 8 MEDLINE; 90211336.
DECOCK B., CONINGS R., DIOCHEM. BIOPHYS. RES.
                                                                                                                                   STRUCTURE BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YOSHIMURA T., LEONARD ADV. EXP. MED. BIOL. 3
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LEONARD E.J.;
FEBS LETT. 244:487-493(]
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HOMO SAPIENS
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                                                                                                                                                                                                                                                                                                                                           3D-STRUCTURE MODELLING
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                                                                 DOMAILLE P.J.;
35:6569-6584(1996).
                                                                                                                                                                         BIOL.
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1:388-399(1989).
                                                                                                                                                                                            BUJACZ
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                                                                                                                                                                    CZ G., DOMAILLE
4:64-69(1997).
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ES. COMMUN. 169:346-351(1990).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ) E.J.;
305:47-56(1991).
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                                                                                                                                                                                                                                                                                                                                                                                   LENAERTS J.-P., BILIAU A., COMMUN. 167:904-909(1990).
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J.J., MATSUSHIMA K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOORE S.K.,
                                                                                                                                                                                          DOMAILLE P.J.,
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                                                                                                                                                                                            HANDEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    А.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TANAKA S.,
                                                                                                                                                                                          T.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORNHILL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REINHERZ E.L.;
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                                                                                                                                                                                            WLODAWER
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Matches 1
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[14]
MUTAGENESIS.
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CYTOKINE;
SIGNAL
CHAIN
MOD_RES
DISULFID
DISULFID
CARBOHYD
VARIANT
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MUTAGEN
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FEBS LETT. 395:277-282(1996).
-!- FUNCTION: CHEMOTACTIC FAC
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ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.;
J. BIOL. CHEM. 269:15918-15924(1994).
                                                                                                                                                                                                                                                                                                 MUTAGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WEBER M.,
                                                                                                                                      MUTAGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE; 97053697
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.

PYM: PROCESSING AT THE N-TERNINUS CAN REGULAR RECEPTOR AND TARGET CELL SELECTIVITY. DELETION OF THE AMINO- TERMINAL RESIDUE CONVERTS IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOATTRACTANT. SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATHEROSCLEROSIS.
SUBUNIT: MONOMER OR HOMODIMER;
PTM: PROCESSING AT THE N-TERMI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               M28226; G338009;

X14768; G34514;

M37719; G487124;

M28225; G338007;

M28225; G338007;

M28223; G338007;

M28224; G338007;

M28224; G338007;

M28224; G348068;

S71513; G244868;

S71513; G24868;

S71513; G24868;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A35474; A35474
S03339; S03339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             M31626; G386961;
M30816; G386961;
M31625; G386961;
M24545; G307163;
Similarity 91.7%;
11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    PS00472; SMALL_CYTOKINES_CC; 1.
; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (CHEMOKINE CC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             UGUCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.;
ED. 183:681-685(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-OCT-94.
                                                                                                   95554222222733322
P35079644546754444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S03339
                    89.1%;
91.7%;
                                                                               11025 MW;
                                                                                                                    JOINED.
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                                                                                                       MISSING: LOSS OF ACTIVITY.

MISSING: LOSS OF ACTIVITY.

MISSING: 90% REDUCTION IN ACTIVITY.

MISSING: 90% REDUCTION IN ACTIVITY.

MISSING: 83% REDUCTION IN ACTIVITY.

D->A: 90% REDUCTION IN ACTIVITY.

N->A: 50% REDUCTION IN ACTIVITY.

S->Q: 40% REDUCTION IN ACTIVITY.

Y->D: LOSS OF ACTIVITY.

R->L: LOSS OF ACTIVITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLARK-LEWIS I.,
                  Score
Pred.
0;
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                                                                                                                                                                                                                                                                                                                                    POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                               MONOCYTE CHEMOTACTIC PROTEIN 1.
Mismatches
                                  90;
                    90; DB 1; I
No. 4.74e-08;
                                                                             REDUCTION CRC32;
                                                                                                                                                                                                                                                                                                                                                                                             CARBOXYLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SYKES B.D.;
                                  Length 99;
                                                                                               H
Indels
                                                                                               ACTIVITY
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Gaps
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73 EICADPKQKWVQ

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PICLDPKQKWVQ 12

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RESULT RESULT AC PART 
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Best Local S
Matches 1
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P42831;
01-NOV-1995 (REL. 3
01-NOV-1995 (REL. 3
15-JUL-1998 (REL. 3
                                           SEQUENCE FROM N.A.
MEDLINE; 94183284.
HOSANG K., KNOKE I.,
BIOCHEM. BIOPHYS. RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LINDSEY M.L., HAWKINS H.K., BIRDSALL H.H., MACKAY C.R., LAROSA G.J., ROSSEN R.D., SMITH C.W., ENTMAN M.L., CIRCULATION 95:693-700(1997).

-I- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM. ANY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE REPERFUSED MYOCARDIUM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISULFID
DISULFID
SEQUENCE
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MOD_RES
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CANIS FAMILIARIS (DOG)
EUKARYOTA; METAZOA; CHC
                                                                                                                                                                                 EUKARYOTA;
                                                                                                                                                                                                         SCYA2.
SUS SCROFA (PIG)
                                                                                                                                                                                                                                                    01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE-JUGULAR VEIN ENDOTHELIAL; MEDLINE; 97176620.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHEMOATTRACTANT PROTEIN-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P52203;
01-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MCP1
SEQUENCE FROM N.A.
                                                                                                                                                                EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CYTOKINE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Match 89.1%;
Local Similarity 91.7%;
nes 11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         73 EICADPKOKWVO 84
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
INDUCTION: BY TNF-ALPHA.
TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAR
VEINS, AND INFILTRATING LEUKOCYTES.
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EICLDPKQKWVQ
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ps00472; SMALL_CYTOKINES_CC; 1.
ps00472; SMALL_CYTOKINES_CC; 1.
ps0472; SIGNAL; INFLAMMATORY RESPONSE.
ps SIMILARITY.
psy SIMILARITY.
psy SIMILARITY CHEMOTACTIC PROTEIN 1.
psy SIMILARITY CHEMOTACTIC ACID (BY
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                                                                                                                                                              ARTIODACTYLA.
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                                                                                                                                                                                      CHORDATA;
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75
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                                                                   KLAUDINY J
                                                                                                                                                                                                                                                       PROTEIN 1 PRECURSOR (MCP-1).
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BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                        PRT;
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                                                                                                                                                                                      VERTEBRATA; TETRAPODA;
                                           7., WEMPE F., WUTTKE W., 199:962-968(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A7075B14 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            No.
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, 4.74e-08;
---ches 1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 101;
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                                                                                                                                                                                    MAMMALIA;
                                                                   SCHEIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                   K.H.;
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

MEDLINE; 94114084.

MEMPLE F., HANRS J., SCHEIT K.H.;

WEMPLE F., HANRS J., SCHEIT K.H.;

DNA CELL BIOL. 13:1-8(1994).

-i- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES.

CAN BIND HEPARIN.

-i- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMI-

-i- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMI-

-i- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMP

C-C)_(CHEMOKINE CC)_.
                                                                                                                                                                                                                                                                         DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SCYA8 OR MC
BOS TAURUS
EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MCP2_BOV
Q09141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-BRAIN;
ZACH O.R.F.;
SUBMITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES,
                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-UTL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                        SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; S67954; E118856; -. EMBL; S67956; G544997; -.
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-!- SUBUNIT: MONOMER OR
-!- SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                             MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EUTHERIA; ARTIODACTYLA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE;
                                                             73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73 EICAEPKQKWVQ
                                                                                                                     Local Similarity es 9; Conser
μ
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EICLDPKQKWVQ 12
                                     DVCADPKQKWVQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PS00472;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (BOVINE).
METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                              99
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24
                                                                                                                        Conservative
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K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                          84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SMALL_CYTOKINES_CC;
                                                                                                                                                                                                                                          10900 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10976 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            88.1%;
83.3%;
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75
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24
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75
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24
                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY)
TO THE INTERCRINE BETA FAMILY (SMALL CYTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY)
TO THE INTERCRINE BETA FAMILY (SMALL CYTO
                                                                                                                     Pred.
2; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 89; DB 1; I
Pred. No. 8.37e-08;
1; Mismatches 1
                                                                                                                                                                                Score
                                                                                                                                                                                                                                                                   BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                              PYRROLIDONE CARBOXYLIC SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                      HEPARIN-BINDING; INFLAMMATOR
BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIMILARITY)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BY SIMILARITY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ECC3AFB4
                                                                                                                                                                                                                                          9BA2CD26 CRC32;
                                                                                                                        Mismatches
                                                                                                                                                       Ö.
                                                                                                                                                                             87;
                                                                                                                                                    2.60e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99
                                                                                                                                                                             DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CRC32;
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                                                                                                                                                                                Length
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                                                                                                                        Indels
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                                                                                                                                                                                                                                                                                                                                                             ACID
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                                                                                                                                                                                                                                                                                                                                                          (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BUT
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                                                                                                                  Gaps
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RESULT

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Query Match
                     DISULFID
CARBOHYD
SEQUENCE
                                                         CYTOKINE;
SIGNAL
CHAIN
MOD_RES
DISULFID
                                                                                                                                                                                                                                                                                                                MCP4_HUMAN STANDARD; PRT; 98 AA.
Q99616;
15-JUL-1998 (REL. 36, CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP
CHEMOATTRACTANT PROTEIN 4) (CK-BETA10) (NCC-1
SCYALS OR NCC1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE: 97113354.
GARCIA - ZEPEDA E.A., COMBADIERE C., LAVIGNE F., HAMID Q., MURPHY P.M., J. IMMUNOL. 157:5613-5626(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE; 97341179.

BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOURBAGY N., APPELBAUM E., REAPE T.J., BRAWNER M., MAKWANA J., FOLEY J.J., APPELBAUM E., REAPE T.J., BRAWNER M., MAKWANA J., FOLEY J.J., SCHIDT D.B., IMBURGIA C., MACNULTY D., MATTHEWS J., O'DONNELL K., O'SHANNESSY D., SCOTT M., GROOT P.H.E., MACPHEE C.; J., BIOL. CHEM. 272:16404-16413(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              UGUCCIONI M., LOETSCHER P., FORSSMANN LI Y., KREIDER B., GAROTTA G., THELEN J. EXP. MED. 183:2379-2384(1996).
                                                                                                                  PROSITE;
                                                                                                                                          EMBL;
                                                                                                                                                                      -!- MASS SPECTROMETRY: MW-9314; MW_ERR-30; METHOD-MALDI; RAN
!- MASS SPECTROMETRY: MW-8750; MW_ERR-30; METHOD-MALDI; RAN
!- MASS SPECTROMETRY: MW-8575; MW_ERR-30; METHOD-MALDI; RAN
!- INDUCTION: BY INTERLEUKIN-1 AND THE-ALPHA.
!- INTSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INT
THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LO
SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
!- THIS PROTEIN CAN BIND HEPARIN.
!- STHIS PROTEIN CAN BIND HEPARIN.
!- PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA
[FNPGGLA)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAY
(LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.
!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL)
                                                                                                                                                                                                              - -
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                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE; 96235049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; C
                                                                                                                                        -C) (CHEMOKINE CC).
U46767; G1732123; -.
AC002482; G2340091;
                                                                                                                   PS00472;
                                                                                                        CHEMOTAXIS;
                        98
                                    24
24
29
                                                                                                                   SMALL_CYTOKINES_CC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AND
                        10986
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                                     23
24
24
29
 85.1%;
                                                                                                       SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                        W.
 Score
                                           MONOCYTE CHEMOTACTIC PROTEIN 4.
PYRROLIDONE CARBOXYLIC ACID.
BY SIMILARITY.
BY SIMILARITY.
                                   POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERTEBRATA;
                       DF52F6EC
                                                                                                      GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ç
 66;
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LUSTER A.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22-33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-98.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ĭ . .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OR (MCP-4) (MONOCYTE (NCC-1).
DB 1;
                       CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEWALD B.,
BAGGIOLINI
                                                                                                       INFLAMMATORY RESPONSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .;
M.E.,
Length
                                                                                                                                                                          R ISOFORMS (LA)MCP-4 AND
L SIGNAL CLEAVAGE.
N MCP-4.
FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SARAFI M.N.,
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98;
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                                                                                                                                                                                                                                              INTESTINE,
                                                                                                                                                                                                                                                                                          RANGE=17-98
RANGE=22-98
                                                                                                                                                                                                                                                                                 RANGE=24-98
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RESULT OF THE RE
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P10145;
01-MAR-1989 (REL. 1
01-MAR-1989 (REL. 1
15-JUL-1998 (REL. 3
INTERLEUKIN-8 PRECU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE; 893
MUKAIDA N.,
J. IMMUNOL.
                       SEQUENCE (
                                                                                                                                                                                                                GREGORY |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
INTERLEUKIN-8 PRECURSOR (IL-8) (NONOCYTE-DERIVED NEUTROPHIL
CHEMOTACTIC FACTOR) (MDNCF) (T-CELL CHEMOTACTIC FACTOR) (NEUTROPHIL
ACTIVATING PROTEIN 1) (NAP-1) (LYMPHOCYTE-DERIVED NEUTROPHIL-
ACTIVATING FACTOR) (LYNAP) (PROTEIN 3-10C) (NEUTROPHIL-ACTIVATING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIJINE; 88258376.
MATSUSHIMA K., MORISHITA K., YOSH:
LEW W., APPELLA E., KUNG H., LEON.
J. EXP. MED. 167:1883-1893(1988).
                                                                                                         WALZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. MEDLINE; 89313739. KOWALSKI J., DENHA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
MEDILINE; 87224164.
SCHMID J. WEISSMANN C.;
J. IMMUNOL. 139:250-256(1987).
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EUKARYOTA; METAZOA; C
                                                                                                                                                                                          BIOCHEM.
                                                                                                                                                                                                                                                                                                                  SUZUKI K., MIYASAKA MIZUNO S.;
                                                                                                                                                                                                                                                                                                                                                         SEQUENCE OF 23-54. MEDLINE; 89279141.
                                                                                                                                                                                                                                                                                                                                                                                                                     GOLDS E.E.,
BIOCHEM. J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE OF 23-46.
MEDLINE; 89246368.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBMITTED
                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ISHIKAWA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EUTHERIA; PRIMATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FACTOR) (NAF) (GRANULOCYTE CHEMOTACTIC
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                                                                                                                                                                                                                                                                                               EXP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EICADPKEKWVQ
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                                                                                                                                                                                                              CE OF 28-99.
S; 88162914.
7 H., YOUNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity 83.3%;
10; Conservative
                                                                                                                                                                                                                                                                                               MED.
88097462.
RA T., MATS
                                                                                                    OF 28-59.
88106502.
PEVERI P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     89309826.
N., SHIROO M., MATSUSHIMA
DL. 143:1366-1371(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ٦.
                                                                                     BIOPHYS.
                                                                                                                                                                                          BIOPHYS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (JAN-1993)
                                                                                                                                                                                                                                                                                                                                                                                                                     MASON P., NYIRKOS P.;
259:585-588(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DENHARDT
                                                                                                                                                                                                                                                                                             169:1895-1901(1989)
    MATSUSHIMA
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9:1946-1957(1989).
                                                                                                                                                                                          RES.
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                                                                                   ASCHAUER H.,
ES. COMMUN. 1
                                                                                                                                                                                                                                                                                                                                        Η.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TO
                                                                                                                                                                                        SCHROEDER J.M., MROWIETZ U., COMMUN. 151:883-890(1988).
                                                                                                                                                                                                                                                                                                                                    OTA H., YAMAKAWA Y., TAGAWA M., KURAMOTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL/GENBANK/DDBJ
    ×.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       K., YOSHIMURA
H., LEONARD E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. 4.55e-07;
1; Mismatches 1;
    TANAKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                   ., BAGGIOLINI M.;
149:755-761(1987)
  s.,
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    ROBINSON E.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DATA BANKS
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CC -1- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
CC -1- SUBUNIT: HOMODIMER.
CC -1- SUBUNIT: HOMODIMER.
CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
CC -2- CY-C) (CHEMOKINE CXC).
DR EMBL; Y00787; G34519; -.
DR EMBL; M17017; G179580; -.
DR EMBL; M17017; G18628; -.
DR EMBL; M126383; G186328; -.
DR EMBL; M26383; G186388; -.
DR EMBL; M26393; G186388; -.
DR EMBL; D14283; G219916; -.
DR EMBL; D14283; G219916; -.
DR EMBL; D14283; G319315; -.
DR PIR; S03975; S03975.
DR PIR; S03975; S03975.
DR PIR; S03975; S03975.
DR PIR; S118; 15-JAN-91.
DR PDB; 11U8; 15-JAN-91.
DR PDB; 11V8; 12-MAR-97.
DR PDB; 11V8; 12-MAR-97.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (15)
N-TERMINAL FORMS.
MEDLINE: 91006326.
MEDLINE: 91006326.
VAN DAMME J., RAMPART M., CONING R.,
WILLEMS J., BILLIAU A.;
WILLEMS J., BILLIAU A.;
WILLEMS J., BILLIAU A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE: 911/1/200.
CLORE G.M., GRONENBORN A.M.;
7 MOL. BIOL. 217:611-620(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE; 90234679.
CLORE G.M., APPELLA E., YAMADA M.,
BIOCHEMISTRY 29:1689-1696(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE; 90216
BALDWIN E.T.,
                           SIGNAL
                                                                                                                                                                                                                                                                                                                                BAGGIOLINI M., CLARK-LEWIS I.; FEBS LETT. 307:97-101(1992).
                                                                                                                                                                                                                                                                                                                                                                                           BIOCHEMISTRY 30:3128-3135(1991).
                                                                                                                                                                                                                                                                                                                                                                                                               CLARK-LEWIS I., MOSE
                                                                                                                                                                                                                                                                                                                                                                                                                              SYNTHESIS OF 28-99. MEDLINE; 91175767.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VAN DAMME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BALDWIN E.T., WEBER I.T., ST CHARLES R., XUAN J.C., YAMADA M., MATSUSHIMA K., EDWARDS B.F., CLORE G.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               X-RAY CRYSTALLOGRAPHY, AND MEDLINE; 91171286.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WLODAWER A., WEBER I.T.;
J. BIOL. CHEM. 265:6851-6853(1990).
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                                        CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                       MEDLINE; 92347562
                                                                                                                                                                                                                                                                                                                                                                                                         AEBERSOLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE; 89231715.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-TERMINAL FORMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROC. NATL. ACAD.
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                                                                                                                                                                                                                                                                                                                                                                       REVIEW
                                                      3; 11KM; 15-OCT-95.
1; 146930; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  J. BIOCHEM.
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                                                   PS00471;
                                        CHEMOTAXIS;
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EM. 181:337-344(1989).
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D. SCI. U.S.A.
                                     SMALL_CYTOKINES_CXC; 1.
xis; inflammatory response;
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                                                                                                                                                                                                                                                                                                                                                                                                                  WALZ A.,
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INTERLEUKIN-8.
ONE OR MORE OF THESE RESIDUES ARE MISSING
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                                                                                                                                                                                                                                                                                                                                                                                                                   BAGGIOLINI
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                                      3D-STRUCTURE
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P49113;
01-FEB-1996 (REL. 33, CREATED)
01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL AT
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JF 13
JF 13
JF 18
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J. IMMUNOL. 151:6225-6236(1993).

-!- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,

BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN

NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN

RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).

-!- SUBUNIT: HOMODIMER (BY SIMILARITY).

-!- SUBUNIT: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C-X-C) (CHEMOKINE CXC).
EMBL; L04986; G459765; -.
PROSITE; PS00471; SMALL_CYT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAVIA PORCELLUS (GUINEA PIG).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
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                                                                                                                                                                          EICLDPKQKWVQ
                                                                                                                                                                                                                                                                                                                     Similarity
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XIS; INFLAMMATORY RESPONSE;
22 BY SIMILARITY.
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Pred. No. 4.55e-07;
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DISULFID
SEQUENCE
                                                                                              STRAIN-NEW ZEALAND WHITE; TISSUE-
MEDLINE; 91255489.
YOSHIMURA T., YUHKI N.;
J. IMMUNOL. 146:3483-3488(1991).
-!- EUNCTION: CHEMOTACTIC FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MCP1_RABIT
P28292;
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BIOCHEM.
[3]
                                                                                                                                                                                                                                                                                                                                                           ORYCTOLAGUS CUNICULUS (RABBIT) EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                            01-DEC-1992 (REL. 24, CREATED)
01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; L32659; G624394; -. EMBL; M84602; G163395; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-SEMINAL PLASMA;
MEDLINE; 92096117.
WEMPE F., HENSCHEN A., SCHEIT K.H.;
DNA CELL BIOL. 10:671-679(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. TISSUE-SEMINAL PLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A)
SEMINAL FLUID PROTEIN).
BOG TANTERS (POLYMEN)
                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                              EUTHERIA; LAGOMORPHA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -!- SIMILARITY: BELONGS TO C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BIOCHEM. BIOPHYS. RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. MEDLINE; 94338337.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE; 92181448
WEMPE F., EINSPAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WEMPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE-SEMINAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
nes 10; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73
NEUTROPHILS.
SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NEUTROPHILS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |:| ||||||||
EICLDPKQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A39296; A39296.
JC2336; JC2336.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ELCADPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FI.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KUHLMANN J.K., SCHEIT K.H.; BIOPHYS. RES. COMMUN. 202:12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EINSPANIER R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SMALL_CYTOKINES_CC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11114 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                84.2%;
83.3%;
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75
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99
24
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMUN. 1
                                                                                                                                                                                                                                   TISSUE-SPLEEN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BY SIMILARITY.
BY SIMILARITY.
C8F5821D CRC32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 85; DB 1;
Pred. No. 7.97e-07
                                                                                                                                                                                                                                                                                                                                                 VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PYRROLIDONE CARBOXYLIC SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         T K.H.;
183:232-237(1992).
                                                                                                    THAT ATTRACTS MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               125
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(BY
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SETTTT WERE RECOCCEDED TO THE SET OF THE SET
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Best Local S
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                                                                                                                                      C-C) (CHEMOKINE CC).
EMBL; U26425; G995911; -
EMBL; U40672; G1113937; -
MGD; MG1:103576; SCYAL1
PROSSITE; PS00472; SMALL_CYTO
                                                                                                                                                                                                                                                                                       IMMUNITY 4:1-14 (1996).

IMMUNITY 4:1-14 (1996).

IL FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS,
DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A
FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.

I-- SUBCELLULAR LOCATION: EXTRACELLULAR.

IT SUBCELLULAR LOCATION: EXPRESSED CONSTITUTIVELY IN THE
EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR E
EXPRESSION INDUCIBLE IN THE LUNG. (TYPE I ALVEOLAR E
TOTAL OF THE LUNG. THE LUNG. THE LUNG.)

OTHER TOTAL TOTAL OF THE LUNG.
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01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
15-UUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PARTICLE)
SCYALL.
DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EOTA_MOUSE P48298;
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                                                           SIGNAL
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CARBOHYD
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                                                                                                                                                                                                                                               -!- PTM: O-GLYCOSYLATED
-!- SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GONZALO J.-A., JIA G.-Q., AGUIRRE JENKINS N.A., LIN G.-S., KATZ H., GUTIERREZ-RAMOS J.-C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ROTHENBERG M.E., I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                      INFLAMMATORY
                                                                                                                           EOSINOPHIL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE; 96158746.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE; 96004658.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-LUNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 74 ICADPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C-C) (CHEMONAINE C-C) (CHEMONAINE C-C) (CHEMONAINE C-C) 1.
SP; P13500; 1MCA.
OSITE; P500472; SMALL_CYTOKINES_CC; 1.
OSITE; P500472; SIGNAL; INFLAMMATO
RY SIMILAR!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2
                                                                                                                                                                                                                                                                                   CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
INDUCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ICLDPKQKWVQ
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10; Conser
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35
40
55
112
  97
                                                                                                                     00472; SMALL_CYTOKINES_CC; 1.
CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN;
                                  1 23
1 29
24 97
32 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LUSTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE-LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              84
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125
24
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U.S.A.
                                                                                                                                                                                                                                                   70
                                                                                                                                                                                                                                                                        (PROBABLE)
  ¥.
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                                                                                                                                                                                                                                               THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred.
              EOTAXIN.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 84; DB 1; 1
Pred. No. 1.39e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   POTENTIAL.
POTENTIAL.
; FBAC9D27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; INFLAMMATORY RESPONSE; GLYCOPROTEIN. BY SIMILARITY.

MONOCYTE CHEMOTACTIC PROTEIN 1.

PYRROLIDONE CARBOXYLIC ACID (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BY SIMILARITY.
BY SIMILARITY.
                                                                               POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LEDER P.;
92:8960-8964(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 POTENTIAL.
F85A96BC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERTEBRATA; TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NOTATION UPDATE)
CHEMOTACTIC PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 V., FRIEND D., COYLE A.J.,
LICHTMAN A., COPELAND N.G., KOPF M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97
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                                                                                                                       SIGNAL
                                                                                                                                                                                                                                                                                                                            IN THE THYMUS.
EOLAR EPITHELIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                      S (A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     THIS PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                  PROMINENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
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RESULT
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Best Local Similarity
Matches 10; Conser
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Best Local S
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                                                         MCP3_HUMAN STANL...

P80098;

01-DEC-1992 (REL. 24, CREATED)

01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)

15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)

15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)

15-YUTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE PROTEIN 3) (NC28).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISULFID
DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.

-:- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).

-!- SUBCELLULAR LOCATION: EXTRACELLULAR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EOTA_RAT
P97545; (
                                     HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE; PS00472; SMALL_CYTOKINES_
EOSINOPHIL; CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C-C) (CHEMOKINE CC).
EMBL; Y08358; E274141; -.
EMBL; U96637; G2098785; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P97545; 008780;
15-JUL-1998 (REL. 36, CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
ECTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
RATTUS NORVEGICUS (RAT).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WILLIAMS C.M., FLANAGAN B.F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -!- PTM: O-GLYCOSYLATED (PROBABLE)
-!- SIMILARITY: BELONGS TO THE INT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUBMITTED (DEC-1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EUTHERIA; RODENTIA.
SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFLAMMATORY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE=LUNG;
                                                                                                                                                                                                                                                                                                                                                                                   71
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EICADPKKKWVQ
                                                                                                                                                                                                                                                                                                                                         EICLDPKQKWVQ 12
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1 23
24 97
32 57
32 73
94 94
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  AND
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HEMOTAXIS; GLYCOPROTEIN;
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WW;
                                                                                                                                                                                                                                                                                                                                                                                                                      Score 83; DB 1; L
Pred. No. 2.42e-06;
0; Mismatches 2
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Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BY SIMILARITY.
BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INTERCRINE BETA FAMILY (SMALL CYTOKINE
OF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
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No. 2.42e-06;
  31-67
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AND
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>ب</u>
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                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                             MAMMALIA;
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[2]
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
TO G., FITEN P., N
TOWNE J.
                                                                                                                                                                                                                  EMBL; X72308; G313708; A
EMBL; X72309; -; NOT ANN
EMBL; X71087; G288399; -
EMBL; X71087; G288399; A
EMBL; X71087; G288399; A
FIR; UC1478; UC1478.
PIR; S32222; S32222.
PIR; A54678; A54678.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE; 93305913.
MINTY A., CHALON P., GUILLEMOT J.C., KAGHAD MAGAZIN M., MILOUX B., MINTY C., RAMOND P., SHIRE D., FERRARA P., CAPUT D.;
SHIRE D., FERRARA P., CAPUT D.;
SHIRE D., FERRARA P., CAPUT D.;
                                                                                                                                                                                                                                                                                                                                          MEDLIER: 97263733.

MEUNIER S., BERNASSAU J.-M., GUILLEMOT J.-C., FERRARA P., DAF BIOCHEMISTRY 36:4412-4422(1997).

-1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS
                                                                                         CONFLICT
                                                                                                                     MOD_RES
DISULFID
DISULFID
                                                                               SEQUENCE
                                                                                                                                                  CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                KIM K.-S., RAJARATHNAM K., CL
FEBS LETT. 395:277-282(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRUCTURE BY NMR, MEDLINE; 97053697.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE; 92308855.
VAN DAMME J., PROOST P., LENA
J. EXP. MED. 176:59-65(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE; 93213290.
OPDENAKKER G., FRC
BIOCHEM. BIOPHYS.
                                                                                                            CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE - OSTEOSARCOMA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF 30-99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENOMICS 21:403-408(1994).
                                                                                                                                                             SIGNAL
                                                                                                                                                                                 CYTOKINE;
                                                                                                                                                                                                                                                                                                                      CAN BIND HEPARIN.
-!- SUBUNIT: MONOMER.
-!- PTM: O-GLYCOSYLATED
                                                                                                                                                                                                                                                                                                                                                                                                              STRUCTURE BY NMR
                                                                                                                                                                     INFLAMMATORY
                   73 EICADPTQKWVQ
                                                Local
                                                                                                                                                                                                                                                                                                            SIMILARITY: BELONGS TO THE INTERCRINE
EICLDPKQKWVQ
                                       Similarity
10; Conser
                                                                                                                                                                              PS00472; SMALL_CYTOKINES_CC; 1.; CHEMOTAXIS; HEPARIN-BINDING; G
                                                                                                                                                                                                                                                                                                    (CHEMOKINE CC)
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                                                                               99
                                                                                         RESPONSE;
1 23
24 29
24 24
34 59
35 75
29 29
30 30
68 70
                                        Conservative
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                   84
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                                                 82.2%;
83.3%;
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ALT_INIT.
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                                                                                                                                                                     -STRUCTURE.
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                                               Score
Pred.
                                                                                        POTENTIAL.
T -> K (IN REF.
MISSING (IN REF.
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                                                                                                                    MONOCYTE CHEMOTACTIC PROTEIN PYRROLIDONE CARBOXYLIC ACID. BY SIMILARITY.

BY SIMILARITY.
                                                                               7502E19C
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191:535-542(1993)
                                        Mismatches
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                                                 83; DB 1;
No. 2.42e-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            J.-P.,
                                                                             (IN REF. 9C CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                          Ι.,
                                                                                                                                                                               GLYCOPROTEIN; SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   G.,
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                                                                                                                                                                                                                                                                                                             BETA FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                           SYKES
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4).
                                                        Length 99;
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A N., LUPKER
                                                                                                                                                                                                                                                                                                                                                                                                                                           B.D.;
                                        Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            G.
                                                                                                                                                                                                                                                                                                              (SMALL
                                                                                                                                                                                                                                                                                                                                                    ANTI-TUMOR
THIS PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SPELEMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   J.;
                                                                                                                                                                                                                                                                                                                                                                                           DARBON
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RESULT

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                                                                                                                                                                                AL BIOCHEM, BIOPHYS. RES. COMMUN. 237:537-542(1997).

21. INTEGITIV PROMOTES TO THE PRESENCE OF ALLERGENS, THIS PROTEIN

22. INTEGITIV PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT

23. INTEGIT PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT

24. INTEGIT PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT

25. INTEGIT PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT

26. INTEGIT PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT

27. INTEGIT PROMOTES THE ACCUMULANT OF EXTRACTIONS.

28. INTEGIT PROMOTES THE ACCUMULANT OF EXTRACTION OF EMPL.

29. INTEGIT PROMOTES TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE CC)

20. INTEGIT PROMOTES TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE CC)

20. INTEGIT PROMOTES TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE CC)

20. INTEGIT PROMOTES TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE CC)

20. INTEGIT PROMOTES TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE CC)

21. INTEGIT PROMOTES THE ACCUMULANT OF EMPL; U46573; G1552241; ---

22. INTEGIT PROMOTES THE ACCUMULANT OF EMPL; U46572; G1552241; ---

23. INTEGIT PROMOTES THE ACCUMULANT OF EMPL; U46572; G1552241; ---

24. INTEGIT PROMOTES THE ACCUMULANT OF EXPLICATION OF EMPL; U46572; G208509; ---

25. INTEGIT PROMOTES THE ACCUMULANT OF EXPLICATION OF EMPL; U46572; G208509; ---

26. INTEGIT PROMOTES THE ACCUMULANT OF EXPLICATION OF EXP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EOTA_HUMAN STANDARD; PRT; 97 AA. P51671; P50877; Q92490; Q92491; 01-0CT-1996 (REL. 34, CREATED) 01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE) 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
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MEDLINE; 96181758.
MEDLINE; 96181758.
MEDLINE; 96181758.
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MEDLINE; 97312708.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE; 96374440.
BARTELS J., SCHLUE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KITAURA M., NAKAJIMA T., IMAI T., H
TIFFANY H.L., MURPHY P.M., YOSHIE O
J. BIOL. CHEM. 271:7725-7730(1996).
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HOMO SAPIENS (HUMAN).
RHKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                        PROSITE; PS00472; SMALL_CYTOKINES_CC; EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE; 97445071.
HEIN H., SCHLUETER C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE-FORESKIN;
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                                                                NFLAMMATORY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RES.
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                                                      CHEMOTAXIS; GLYCOPROTEIN; POLYMORPHISM.
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., YOSHIE O.;
POTENTIAL.
ECTAXIN.
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Е.,
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                                                                                              SIGNAL;
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SEQUENCE
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J. IMMUNOL. 155:3946-3954(1995).
-I. FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
-I. SUBUNIT: HOMODIMER (BY SIMILARITY).
-I. SUBUNIT: HOMODIMER (BY SIMILARITY).
-I. SIMILARITY; BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXC).
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                                                         ILB_MACMU STANDARD; PRT; 101 AA P51495; 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE) 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE) INTERLEUKIN-8 PRECURSOR (IL-8).
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SEQUENCE
                                                                                                                                                                                                                                                SIGNAL
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                        MACAQUE).
EUKARYOTA; METAZOA;
SEQUENCE FROM N.A.
                                            MACACA MULATTA (RHESUS MACAQUE),
                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                  EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                           MEDLINE; 96003435
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LAST ANNOTATION UPDAT
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Pred. No. 4.21e-06;
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BY SIMILARITY.
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> T (IN CLONE 53).
> S (IN CLONE 34).
> R (IN CLONE 53).
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                                             AND MACACA NEMESTRINA (PIG-TAILED
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4.21e-06;
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                           TETRAPODA; MAMMALIA;
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MEDLINE; 96003435.
VILLINGER F.J., BRAR S.S., MAYNE
- **MMTNOL. 155:3946-3954(1995).
                                        DISULFID
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SEQUENCE
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SEQUENCE
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P49873;
01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MINNERLY J.C., BAGANOFF M.P., DEPPELER C.L., KELLER RAPP S.R., WIDOMSKI D.L., FRETLAND D.J., BOLANOWSKI INFLAMMATION 19:313-331(1995).

-i- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATT! BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVEE
                                                                                                                                                                                                                                                            CAN BIND HEPARIN.
-!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SPECIES-M.MULATTA; TISSUE-BLOOD;
MEDLINE; 95355132.
                                                                                                                                                                 SIGNAL
                                                                                                                                                                                    CYTOKINE;
                                                                                                                                                                                                                            EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. MEDLINE; 95091716.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SCYA8 OR MCP2
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| EICLDPKQKWVQ 12
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L; U19849; G644816; -.
U19851; G644820; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
SUBUNIT: HOMODIMER (BY SIMILARITY).
SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (S
                                                                                                                                                                                                                                                                                                                             FUNCTION:
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Z48480; G683719; -
TE; PS00472; SMALL_
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                                                                                                                                                                                    CHEMOTAXIS;
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SMALL_CYTOKINES_CC; 1.
XIS; SIGNAL; HEPARIN-BINDING;
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    . 28;
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                                          ME.
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                                      BY SIMILARITY.

MONOCYTE CHEMOTACTIC PROTEIN 2.

PYRROLLDONE CARBOXYLIC ACID (BY
SIMILARITY).

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 82; DB 1; I
Pred. No. 4.21e-06;
2; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BY SIMILARITY.
INTERLEUKIN-8.
BY SIMILARITY.
BY SIMILARITY.
9; 77D78AAO CRC32;
  Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERTEBRATA;
                                                                                                                                                                                                                                                                                                                         205:148-153(1994).
OR THAT ATTRACTS MONOCYTES. THIS PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
  81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FACTOR THAT ATTRACTS NEUTROPHILS, MONOCYTES. IT IS ALSO INVOLVED IN LEASED FROM SEVERAL CELL TYPES IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHIKKALA
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  1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TETRAPODA; MAMMALIA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 101;
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Length
                                                                                                                                                                                    INFLAMMATORY RESPONSE
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  99;
                                                                                                                                                                                                                                                                SIMILARITY)
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                                                                                                                                                                                                                                                                  CYTOKINE
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RESULT IN RESULT
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                      Q62401;
01-NOV-1997
01-NOV-1997
15-JUL-1998
MONOCYTE CHEI
                                                                                                                                                                                                                                      SCYA12 OR MCP5.

MUS MUSCULUS (MOUSE).

EUKARYOTA; METAZOA; C

EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MCP1_CAVPO
Q08782;
01-NOV-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DISULFID
DISULFID
CARBOHYD
SEQUENCE
                                                                           MEDLINE; 97
JIA G.-Q., (
WERSHIL B.K
J. EXP. MED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL
CHAIN
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SCYA2 OR MCP1.
SEQUENCE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN=2; TISSUE=S
MEDLINE; 93267104.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAVIA PORCELLUS (GUINEA PIG).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UF
15-JUL-1998 (REL. 36, LAST ANNOTATION
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURS
                                                                                                                                                                                                                                                                                                                                                      CHEMOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
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                                                                        SEQUENCE FROM N.A.
MEDLINE; 97079149.
JIA G.-Q., GONZALO J.A., LLOYD C.,
WERSHIL B.K., GUTIERREZ-RAMOS J.C.,
J. EXP. MED. 184:1939-1951(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MCP5_MOUSE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COSHIMURA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      73 EVCADPOOKWVO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         L04985; G349821;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity 75.0% 9; Conservative
97149438.
                                                                                                                                                                                                                                                                                                                                                                         997 (REL. 35, CREATED)
997 (REL. 35, LAST SEQUENCE UPDAT
998 (REL. 36, LAST ANNOTATION UPD
CHEMOTACTIC PROTEIN 5 PRECURSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PS00472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (CHEMOKINE CC).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE-SPLEEN;
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N: CHEMOTACTIC FACTOR THAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SMALL
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73
97
                                                                                                                                                                                                                                                                  CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     80
75
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STGNAL; INFLAMMATORY RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY) TO THE INTERCRINE BETA FAMILY (SMALL CYTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Œ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. 7.29e-06;
1; Mismatches ?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 81; DB 1; 1
Pred. No. 7.29e-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BY SIMILARITY.
BY SIMILARITY.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BY SIMILARITY MONOCYTE CHEM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERTEBRATA; TETRAPODA;
                                                                                                                                                                                                                                                                     VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
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ION UPDATE)
CURSOR (MCP-5)
                                                                                                                                  KREMER
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ONE CARBOXYLIC ACID (BY
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                                                                                                                                  ۲.,
                                                                                                                                                                                                                                                                     TETRAPODA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GLYCOPROTEIN
                                                                                                                                  MARTINEZ A.C.,
                                                                                                                                                                                                                                                                     MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BUT
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RESULTATION OF THE PART OF THE
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AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE
C CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC
C CHEMOKINE THAT SIGNALS TREOUGH CCR2. INVOLVED IN ALLERGIC
C INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A
PIVOTAL ROLE DURING EARLY STRAGES OF ALLERGIC LUNG INFLAMMATION.
C -!- SUBUNIT: HOMODIMER (BY SIMILARITY)
C -!- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND
THYMUS. ALSO FOUND IN THE SALTYARY GLANDS CONTALNING LYMPH NODES,
C BREAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.
C -!- INDUCTION: BY IFN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
C -C-C) (CHEMOKINE CC).
EMBL; U50712; G1477582; -.
EMBL; U50712; G1477582; -.
EMBL; U50721. G2477383; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
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LUSTER A.D.;
J. EXP. MED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISULFID DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE;
CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SDF1
                                                            NOMURA M., NAKATA Y., UZAWA A SUBMITTED (DEC-1994) TO EMBL/C-!- FUNCTION: CHEMOATTRACTANT
                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. MEDLINE; 93342488. TASHIRO K., TADA H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-FEB-1995 (REL. 31, CREATED)
01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH
STIMULATING FACTOR) (PBSF) (12-O-TETRADECANOYLPHORBOL 13-ACETATE
REPRESSED PROTEIN 1) (TPAR1) (THYMIC LYMPHOMA CELL STIMULATING FACTOR)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P40224;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; C
EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL
             -
                                                                                                                                          STRAIN=AKR/J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
MEDLINE; 94181581.
NAGASAWA T., KIKUTANI
                                                                                                                                                                                                                                                      WEINSTEIN
                                                                                                                                                                                                                                                                                  JIANG W.,
                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. MEDLINE; 95073497.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROC. NATL.
                                                                                                                                                                                                                                                                                                                                                                                        SCIENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (TLSF).
                                                                                                                                                                      EQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         72 EICADPKEKWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \vdash
                                         NOT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MGI:108224; SCYA12.
ITE; PS00472; SMALL_CYTOKINES_CC; 1.
KINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EICLDPKQKWV
NEUTROPHILS.
CTION: STIMULATES THE PROLIFERATION OF
                                                                                                                                                                                                                                                                                                                                                                                        261:600-603(1993)
                                                                                                                                                                                                                                                   ZHOU P.,
I.B.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9.
                                                                                                                                                                                                                             RES.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACAD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             185:99-109(1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GARCIA-ZEPEDA E.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                          215:284-293(1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SCI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .22
104
58
74
                                                                                                                                                                                                                                                                               KAHN S.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       78.2%;
81.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11659
                                                          , UZAWA A., NOSE M., AKASHI M., SUZUKI G.;
TO EMBL/GENBANK/DDBJ DATA BANKS.
TTRACTANT ACTIVE ON T-LYMPHOCYTES, MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                    HEILKER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 н.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KISHIMOTO T.;
s.A. 91:2305-2309(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score
Pred.
1; N
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MONOCYTE CHEMOTACTIC PROTEIN 5.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                               TOMITA N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08FA6C35 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                 SHIROZU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŏ.
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2.17e-05;
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                                                                                                                                                                                                                                                                               JOHNSON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                 NAKANO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 104;
           BONE MARROW-DERIVED
                                                                                                                                                                                                                                                                               M.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
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                                                                                                                                                                                                                                                                                                                                                                                                               HONJO
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Best Local
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EMBL; D21072; G468457; -.

EMBL; L12029; G393180; -.

EMBL; L12030; G393182; -.

EMBL; S74318; G786394; -.

EMBL; D43804; G1304174; -.

EMBL; D43805; G1304175; -.

PIR; A53497; A53497.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISULFID DISULFID VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SDF1_HUMAN
P48061;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PIR; A534
MGD; MGI:
PROSITE;
                                                         -!- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS
PROBABLY GENERATED BY ALTERNATIVE SPLICING
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPH
C-X-C) (CHEMOKINE CXC).
EMBL; U16752; G571508; -.
EMBL; L36033; G1220366; -.
EMBL; L36033; G1220366; -.
                                                                                                                                                                                                                                                                                     MEDLINE; 98046030.
CRUMP M.P., GONG J.H.,
ARENZANA-SEISDEDOS F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-FEB-1996 (REL.
01-FEB-1996 (REL.
15-JUL-1998 (REL.
                                                                                                                                                                                                                                                                                                                                                                                                                SHIROZU M., NAKANO T., SHINOHARA T., HONJO T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STIMULATING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                   ЕМВО J. 16:6996-7007(1997)
                                                                                                                                                                                                                                                                       CLARK-LEWIS
                                                                                                                                                                                                                                                                                                                                                     STRUCTURE BY NMR OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL
                                                                                                                                                                                                                              -!- FUNCTION: CHEMOATTRACTANT
                                                                                                                                                                                                                                                                                                                                                                                             SENOMICS 28:495-500(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUBMITTED (OCT-1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               69 QVCIDPKLKWIQ 80
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ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA)
PROBABLY GENERATED BY ALTERNATIVE SPLICING.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                           NOT NEUTROPHILS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EICLDPKQKWVQ
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[TE; PS00471; SMAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity 7; Conse
PS00471; SMALL_CYTOKINES_CXC; FALSE_NEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                         96039262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PS00471; SMALL_CYTOKINES_CXC; FALSE_NEG.
CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIMATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       89
                                          17-JUN-98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FACTOR)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           320
320
89
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     33, CREATED)
33, LAST SEQUENCE UPDATE)
36, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10032 MW;
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58.3%;
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89
71
                                                                                                                                                                                                                                                                                                                                                     22-88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (PBSF).
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                                                                                                                                                                                                                                                                                          LOETSCHER I
                                                                                                                                                                                                                                                                                                                                                                                                                                      INAZAWA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred.
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POTENTIAL.
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BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                            ACTIVE ON T-LYMPHOCYTES, MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       222C4E52 CRC32;
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                                                                                                                                              INTERCRINE ALPHA
                                                                                                                                                                                                                                                                                          жу.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            78;
No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                      TASHIRO K.,
                                                                                                                                                                                                                                                                                          .L.,
                                                                                                                                                                                                                                                                                          RAJARATHNAM K.,
L., BAGGIOLINI M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3.72e-05
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A
                                                                                                                                                                                    (ALPHA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                      TADA H.,
                                                                                                                                           FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (PRE-B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                          AMARA A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             89;
                                                                                                                                                                                      AND BETA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CELL GROWTH
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Best Local &
Matches
                    Query Match
Best Local S
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-OCT-1996 (REL. 3
01-OCT-1996 (REL. 3
15-JUL-1998 (REL. 3)
ECTAXIN PRECURSOR (E
SCYAll.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CYTOKINE; CHE
3D-STRUCTURE.
SIGNAL
                                                                                    DISULFID
DISULFID
CARBOHYD
CONFLICT
SEQUENCE
                                                                                                                                                                                                                            -!- SUBCELLULAR LOCATION: EXTRACELLULAR.
-!- TISSUE SPECIFICITY: LUNG.
-!- PTM: O-GLYCOSYLATED (PROBABLE).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
EMBL: 018941; G687556; -.
EMBL: 018941; G687556; -.
EMBL: 018941; G687556; -.
HSSP: P13500; 1MCA.
PROSITE: P500472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                    MEDLINE: 94157409.

MEDLINE: 94157409.

JOSE P.J., GRIFFITHS-JOHNSON D.A., COLLINS P.D., WALSH I MOQBEL R., TOTTY N.F., TRUONG O., HSUAN J.J., WILLIAMS J. EXP. MED. 179:881-887(1994).

-:- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, & FEATURE OF ALLERGIC INFLANTORY REACTIONS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
MEDLINE: 95091818.
JOSE P.J., ADCOCK I.M.,
WELLS T.C., WILLIAMS T.
                                                                                                                                                                    CHAIN
                                                                                                                                                                                   SIGNAL
                                                                                                                                                                                                                   EOSINOPHIL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-HARTLEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BIOCHEM. BIOPHYS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ROTHENBERG M.E., LUSTER A.D., LILLY C.M., J. EXP. MED. 181:1211-1216(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EUKARYOTA; METAZOA;
EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAVIA PORCELLUS (GUINEA PIG).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P80325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EOTA_CAVPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE OF 24-96.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A
                                                                                                                                                                                                   INFLAMMATORY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 EICLDPKQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QVCIDPKLKWIQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity 58.3% 7; Conservative
                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       95173589.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  93
                                                                                1
24
31
32
93
88
6 AA;
                                                                                            24 PESPONSE: 1 23 24 96 72 96 93 93 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1
20
30
32
32
3AA;
                                                                                                                                                                                                              CYTOKINE; CHEMOTAXIS;
                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=LUNG;
                                                                                                                                                                                                             SMALL_CYTOKINES_CC; 1.
INE; CHEMOTAXIS; GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29, CREATED)
34, LAST SEQUENCE UPDATE)
36, LAST ANNOTATION UPDATE)
(EOSINOPHIL CHEMOTACTIC PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   80
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93
55
71
10666 MW;
                                                                                    10753
                                     76.2%;
81.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                77.2%;
58.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             T.J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GRIFFITHS-JOHNSON D.A.,
                                                                                    MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POWER
                  Score 77;
Pred. No.
0; Misma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 78;
Pred. No.
                                                                                EOTAXIN.
BY SIMILARITY.
BY SIMILARITY.
POTENTIAL.
D -> G (IN REF. 2
DD28C7E5 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POTENTIAL.
STROMAL CELL-DERIVED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4B9911C7 CRC32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ER C.A.;
205:788-794(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                     Mismatches
                                     DB 1; L
6.37e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 1; I
3.72e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    96
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DRAZEN J.M., LEDER
                                                                                                 2)
                                                  Length 96;
                    2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BERKMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FACTOR 1.
                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 93;
                                                                                                                                                                                                                                                                                                                                                                                                                                           D.T.,
                                                                                                                                                                                                                                                                                                                                                                                            A PROMINENT
                    0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P.;
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                  Gaps
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     BBBBBB
                                                                                                 RESULT
                                                                                                                                                                              В
                                                                                                                                                                                                             Query Match
Best Local S
Matches
                P80343;
01-FEB-1995
01-FEB-1995
15-JUL-1998
                                                                                                                                                                                                                                                                             CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                             DISULFID
DISULFID
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE; 96183056.

MEDLINE; 96183056.

REGARMA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;

BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).

PROPERTIES. PUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.

HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPHILS, BASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LUNG THE FALPHA

PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND MAY FUNCTION AS AN AUTOCRIME MEDIATOR FOR THE MACROPHAGE PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGULATES VASCULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE; 95238980.
SHANLEY T.P., SCHMAL H., FRIEDL |
J. IMMUNOL. 154:4793-4802(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MIIA_RAT STANDARD: PRT; 92 AA. P50229; P50229; O1-OCT-1996 (REL. 34, CREATED) O1-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE) O1-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                            CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL;
01-FEB-1995 (REL. 31, CREATED)
01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1B (MCP-1B) (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. STRAIN-LONG EVANS; TISSUE-LUNG; MEDLINE; 95238980.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SCYA3 OR MIP1A.
RATTUS NORVEGICUS (RAT)
EUKARYOTA; METAZOA; CHO
                                                                                                                                                                                                                                                                                                                                                                           SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                             CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 24-57.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE; 95298037
SHI M.M., GODLESK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN-CD-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR
                                                                                    MCPB_BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -!- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS)
-!- SIMILARITY: BELONGS TO THE INTERCRINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-WISTAR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BIOCHEM. BIOPHYS. RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A
                                                                                                                                                               71 QICADPKETWVQ : | | | | | | | | | | |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             71
                                                                                                                                                1 EICLDPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BINDS HEPARIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFLUX. THIS PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ICADPKKKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ICLDPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                        U22414; G790633; -. U06435; G459150; -.
                                                                                                                                                                                                              Similarity
8; Conser
                                                                                                                                                                                                                                                                                                                                                                                                           PS00472;
                                                                                                                                                                                                                                                                                                                                                                                            CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GODLESKI J.J., PAULAUSKIS J.
                                                                                                                                                                                                                                                                             92
                                                                                                                                                                                                                                                                                            34
35
57
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                                                                                                                                                                                                              Conservative
                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12
                                                                                                                                                12
                                                                                                                                                                              82
                                                                                                                                                                                                                                                                                                                                                                                        SMALL_CYTOKINES_CC; 1.
XIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING
                                                                                                                                                                                                                              75.2%;
66.7%;
                                                                                                                                                                                                                                                                             23
92
57
73
6
57
10335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMUN. 211:289-295(1995).
                                                                                                                                                                                                                                                                                ¥.
                                                                                                                                                                                                           Score 76; DB 1; L
Pred. No. 1.09e-04;
2; Mismatches 2
                                                                                                                                                                                                                                                                           A -> T (IN REF. 2)
C -> W (IN REF. 2)
F48CF89F CRC32;
                                                                                                                                                                                                                                                                                                                          MACROPHAGE INFLAMMATORY
BY SIMILARITY
BY SIMILARITY
                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   H.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    b
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BETA

FAMILY

(SMALL CYTOKINE

JONES

M.L.,

WARD P.A.;

(MIP-1-ALPHA).

74

Ą

Length 92; 2

Indels

0

Gaps

0,

AND

ω .

PROTEIN 1-ALPHA

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RESULTATION OF THE RESULT.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MCP2_HUMAN STANDARD; PRT; yy AA.

P80075; P78388;

P01-DEC-1992 (REL. 24, CREATED)

P01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)

P01-NOV-1998 (REL. 36, LAST ANNOTATION UPDATE)

MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MCP-2)

E CHEMOATTRACTANT PROTEIN 2) (HC14).

SCYAB OR SCYA10 OR MCP2.

SCYAB OR SCYA10 OR MCP2.

SCYAB OR SCYA10 OR MCP2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                   SUBUNIT.
MEDLINE; 97053697.
KIM K.-S., RAJARATI
FEBS LETT. 395:277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BIOCHEMISTRY 33:13406-13412(1994).

-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES,

-!- RELEASE OF GELATINASE B. THIS PROTEIN CAN BIND HEE

-!- PIM: THE N-TERMINAL IS BLOCKED.

-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BOS TAURUS EUKARYOTA;
                                                                                                                                               VΑN
                                                                                                                                                                                                                                                                SEQUENCE OF 23-99 FROM N.A. MEDLINE; 91207938.
CHANG H.C., HSU F., FREEMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VAN COILLIE E., FITEN P., VAN DAMME J., OPDENAKKER GGENOMICS 40:323-331(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A., MEDLINE; 97237052.
                                                                                                                                                                                                                                                                                                                                                      BIOCHEM. BIOPHYS.
                                                                                                                                                                                                                                                                                                                                                                                               VAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROOST P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-KIDNEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EUTHERIA;
[1]
                                                                                                                                                                                   TISSUE=OSTEOSARCOMA;
                                                                                                                                                                                                           SEQUENCE OF 26-99.
                                                                                                                                                                                                                                                                                                                                                                              VAN
                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE; 97224420.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE; 95034774.
                                                                                                                                                                  MEDLINE; 92308855
                                                                                                                                                                                                                                                                                                                                                                                                                                     [SSUE=BONE MARROW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        48
                                                                                                                          EXP. MED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 EICLDPKQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                COILLIE E., FROYEN F., NOMIYAMA H., MIURA R., AELST I., VAN DAMME J., OPDENAKKER G.; CHEM. BIOPHYS. RES. COMMUN. 231:726-730(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAURUS
  FUNCTION: CHEMOTACTIC
                                                                                                                                               DAMME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EICAEPKXXWVQ
                                                                                                                                                                                                                                                    IMMUNOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (CHEMOKINE CC).
PS00472; SMALL_CYTOKINES_CC;
CHEMOTAXIS; HEPARIN-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IS (BOVINE).

NETAZOA; CHC

ARTIODACTYLA.
                                                                                                                       J., PROOST P., LENAERTS J.-P.,
2D. 176:59-65(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIMATES
                     RAJARATHNAM K., C
395:277-282(1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WUYTS A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              74 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                               3U F., FREEMAN G.
1:388-399(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            34
50
8360 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                74.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AND VARIANT GLN-69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         AND VARIANT GLN-69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENAERTS J.-P., VAN DAMME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  G.;
  FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NOMIYAMA H.,
                                        CLARK-LEWIS
                                                                                                                                                                                                                                                                     G.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BY SIMILARITY.
BY SIMILARITY.
66172F08 CRC32;
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Pred. No. 1.85e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VERTEBRATA; TETRAPODA; MAMMALIA;
THAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                   GRIFFIN J.D.,
ATTRACTS MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CRC32;
                                        H.
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                                                                                                                                           OPDENAKKER G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TETRAPODA;
                                        SYKES B.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Υ.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
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                                                                                                                                                                                                                                                                     REINHERZ E.L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MIURA
                                                                                                                                                                                                                                                                                                                                                                                          FITEN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ALSO INDU
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LYMPHOCYTES,
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Best Local S
Matches
                                                                                                                                                                                                                                                                                                                                   MIP4_HUMAN STANDARD; PRT; 89 AA.
P55774;
01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
ACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND ACTIVATION-REGULATED CHEMOKINE) (CC CHEMOKINE PARC) (ALTERNATIVE ACTIVATED MACROPHAGE ASSOCIATED CC CHEMOKINE 1) (AMAC-1).
SCYALS OR MIP4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOD_RES
DISULFID
DISULFID
         DISCUSSION OF SEQUENCE.
MEDLINE; 97275308.
WELLS T.N.C., PEITSCH M.C.;
J. LEUKOC. BIOL. 61:545-550(1997).
J. PUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS
MONOCYTES OR GRANULOCYTES.
MONOCYTES OR GRANULOCYTES.
INTO B CELL FOLLICLES IN LYMPH NODES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL;
EMBL;
HSSP;
                                                                                                        KODELJA V., MUELLER (
SUBMITTED (AUG-1997)
                                                                                                                                                     HIESHIMA K., IMAI T., BABA M., SHOUDAI K., ISHIZUKA K., NAKAGAWA T., TSURUTA J., TAKEYA M., SAKAKI Y., TAKATSUKI MIURA R., OPDENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAM J., IMMUNOL. 159:1140-1149(1997).
                                                                                                                                                                                                                             SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                  PATENT NUMBER US5504003
                                                                                                                                                                                                                                                                                                              HOMO SAPIENS (HUMAN)
EUKARYOTA; METAZOA; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHAIN
                                                                                                                                SEQUENCE FROM N.
                                                                                                                                                                                                    TISSUE-AORTA, AND LUNG;
MEDLINE; 97376836.
                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                 EUTHERIA; PRIMATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE; PS00472;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.

TISSUE SPECIFICITY: HIGHEST EXPRESSION FOUND IN THE SMALL
INTESTINE AND PERIFFHERAL BLOOD CELLS. INTERMEDIATE LEVELS SEEN
THE HEART, PLACENTA, LUNG, SKELETAL MUSCLE, THYMUS, COLON, OVAR
SPINAL CORD AND PANCREAS. LOW LEVELS SEEN IN THE BRAIN, LIVER,
                                                                                                                                                                                                                                                                                                                                                                                                                                               30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INDUCTION: BY INTERFERON GAMMA, MITOGENS AND INTERLEUKIN-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BASOPHILS AND EOSINOPHILS. MAY PLAY A ROLE IN NEOPLASIA AND INFLAMMATORY HOST RESPONSES. THIS PROTEIN CAN BIND HEPARIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SPLEEN AND PROSTATE
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Y10802; E294088;
P13500; 1MCA.
                                                                                                                                                                                                                                                                RUBEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
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 SPECIFICITY:
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KIS; SIGNAL; HEPARIN
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당.
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58.3%;
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                                                                                                                                                                                                                             AND PARTIAL SEQUENCE
                                                                                                                                                                                                                                                                                                              CHORDATA;
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99
59
75
69
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 EXPRESSED
                                                                                                        POLITZ O., HAKIY N
EMBL/GENBANK/DDBJ
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MONOCYTE CHEMOTACTIC PRO
PYRROLIDONE CARBOXYLIC A
BY SIMILARITY.

BY SIMILARITY.

K -> Q.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 75; DB 1;
Pred. No. 1.85e-04
4; Mismatches
                                                                                                                                                                                                                                                                                                              VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5DDD5C20 CRC32
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HEPARIN-BINDING;
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 ΑŢ
                                                                                                                    HAKIY N.,
 LEVELS
                                                                                                         N., ORFANOS
DATA BANKS
                                                                                                                                                                                                                                                                                                              TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 99;
                     LYMPHOCYTES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFLAMMATORY RESPONSE;
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                                                                                                                                                                    NOMIYAMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
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THE LUNG. A LOWER
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[7]
                       MIGRATION
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Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

MPsrch\_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:34:15 1999; MasPar time 4.93 Seconds 134.420 Million cell updates/sec

Description: Perfect Score: Sequence: Title: >US-08-927-939-10 (1-12) from US08927939.pep 101 1 EICLDPKQKWVQ 12

Tabular output not generated.

Scoring table: PAM 150 Gap 15

Searched: 180763 seqs, 55169189 residues

Post-processing: Minimum Match 0\$ Listing first 100 summaries

Database:

sptremb18
1:sp\_archea 2:sp\_bacteria 3:sp\_fung1 4:sp\_human
5:sp\_invertebrate 6:sp\_mammal 7:sp\_mhc 8:sp\_organelle
9:sp\_phage 10:sp\_plant 11:sp\_rodent 12:sp\_unclassified
13:sp\_vertebrate 14:sp\_virus

Statistics: Mean 25.692; Variance 33.643; scale 0.764

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

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Result	Score	Query Match	Length	BB	Ħ	Description	Pred. No.
<b>–</b>	79	78.2	97	6	062812	INTERLEUKIN-8 (FRAGMEN	5.88e-05
2	74	73.3	. 97	13	057411	LYMPHOTACTIN PRECURSOR	8.15e-04
ω	74	73.3	395	11	035188	NEUROTACTIN.	8.15e-04
4	74	73.3	395	11	035933	FRACTALKINE.	8.15e-04
5	70		119	4	000175	MPIF-2.	6.31e-03
σ	69	68.3	97	11	089093	CC CHEMOKINE ST38 PREC	1.04e-02
7	69		134	4	000585	BETA CHEMOKINE EXODUS-	1.04e-02
8	68	67.3	92	11	088430	CC CHEMOKINE ABCD-1.	1.72e-02
9	89		109	11	055038	B LYMPHOCYTE CHEMOATTR	1.72e-02
10	67	66.3	104	13	073912	K60 PROTEIN PRECURSOR.	2.82e-02
11	65	64.4	80	4	Q14745	LD78 ALPHA BETA PRECUR	7.51e-02
12	65	64.4	95	4	Q99664	CHEMOKINE EXODUS.	7.51e-02
13	65	64.4	96	11	P97884	CC CHEMOKINE EXODUS.	7.51e-02
14	65	64.4	120	4	015467	IL-10-INDUCIBLE CHEMOK	7.51e-02
15	63	62.4	101	13	093442	LFCA-1 PROTEIN PRECURS	1.97e-01
16	62	61.4	101	13	093238	CC CHEMOKINE-1.	3.16e-01
17	61	60.4	91	4	043646	RANTES PRECURSOR.	5.06e-01
18	61	60.4	109	4	043927	CXC CHEMOKINE PRECURSO	5.06e-01
19	60	59.4	95	14	Q98158	ORF K6.	8.07e-01
20	60	59.4	203	14	Q67634	ECO Q PROTEIN (FRAGMEN	8.07e-01

MAMMALIA;

EUTHERIA;

RODENTIA;

O J., VATH brain

4;

UPDATE

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RESULT ACCOUNTS OF THE SOUTH ACCOUNTS OF THE
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AC 06
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ID 035188
AC 035188;
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Best Local S
Matches
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Best Local Similarity 66.7%;
Matches 8; Conservative
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95
97
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99
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057411;
01-JUN-1998
01-JUN-1998
01-JUN-1998
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062812;
062812;
01-AUG-1998;
01-AUG-1998;
01-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-JUN-1998 (1700)

11 OLIUN-1998 (1700)

12 OLIUN PRECURSOR.

13 OLIUN (GALLUS (CHICKEN).

14 OLIUN GALLUS (CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES; EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES; EUKARYOTA; METAZOA; CHORDATA; PHASIANIDAE; PHASIANINAE; GALLUS.
                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
TISSUE-SPLEEN;
TISSUE-SPLEEN;
ROSSI D.L., BAZAN J.F., ZLOTNIK A.;
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ
EMBL; AF006742; G2827882; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE-BRONCHOALVEOLAR TISSUE;
FRANCHINI M.;
SUBMITTED (APR-1998) TO EMBL/G
EMBL; AF062377; G3126973; -.
NON_TER 97 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EQUUS CABALLUS (HORSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
PERISSODACTYLA; EQUIDAE; EQUUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-AUG-1998 (TREMBLREL. 07, 01-AUG-1998 (TREMBLREL. 07, 01-AUG-1998 (TREMBLREL. 07, INTERLEUKIN-8 (FRAGMENT).
                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                   SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
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                                                                                                                                      72 ICVHPEQKWVQ
                                                                                                                                                                                                  Local Similarity
mes 8; Conser
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EICLDPKQKWVQ 12
                                                                                                               ICLDPKQKWVQ
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51.5
51.5
51.5
51.5
                                                                                                                                                                                                                                                                                       97 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (TREMBLREL. 06, CREATED)
(TREMBLREL. 06, LAST SEQUENCE UPDATE)
(TREMBLREL. 06, LAST ANNOTATION UPDATE)
                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                  Conservative
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362
425
517
1014
1224
2919
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                                                                                                                                                                                                                                                                                       11131 MW;
                                                                                                                                                                                                                        73.38;
72.78;
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Q30304
Q3007
Q04007
Q50018
Q26152
P91309
Q85431
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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                                                                                                                                                                                             Score 74; DB 13;
Pred. No. 8.15e-04;
1; Mismatches 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 79; DB 6;
Pred. No. 5.88e-05
2; Mismatches
                                                                                                                                                                                                                                                                                POTENTIAL.
LYMPHOTACTIN.
3290101C CRC32;
                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      00396FBF CRC32
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                             395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MHC CLASS I HEAVY CHAI
MHC CLASS I LYMPHOCYTE
PHYTOENE SYNTHASE.
COSMID B1764.
V-SERA 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                                                                             DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MAMMALIA;
                                                                                                                                                                                                  ..
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                        Length 97;
                                                                                                                                                                                                  Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ELEGAN
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2.79e+01
2.79e+01
2.79e+01
2.79e+01
2.79e+01
2.79e+01
2.79e+01
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  RESULT INCOME.
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Best Local s
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 73.3%;
Best Local Similarity 72.7%;
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NATURE 387:611-617(1997).
EMBL; AF010586; G2317698; -
MGD; MG1:1097153; SCYD1.
PFAM; PF00048; 118; 1.
SEQUENCE 395 AA; 42098 M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              035933;
035933;
01-JAN-1998;
01-JAN-1998;
01-NOV-1998;
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000175;
000175;
01-JUL-1997
01-JUL-1997
01-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FRACTALKINE.

MUS MUSCULUS (MOUSE).

EUKARYOTA; METAZOA; CHORDATA; VE
SCIUROGNATHI; MURIDAE; MURINAE;

[1]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ROSSI D., HARDIMAN G., COPELAND N., GILBER ZLOTNIK A., BAZAN J.F.; SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ EMBL; U92565; G2459677; -. PFAM; PF00048; 118; 1. SEQUENCE 395 AA; 42040 MW; 3997A113 CR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE; 97320499.

MEDLINE; 97320499.

PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., PAN Y., CLARE L., HONG Z., DOLICH B., ALPERIN A., CULP GOSSELIN M., MA J., DUSSAULT B., WOOLF B., ALPERIN A., CULP GUTIERREZ-RAMOS J.C., GEARING D.;

"Neurotactin, a membrane-anchored chemokine upregulated in inflammation.";
SEQUENCE FROM N.A. PATEL V.P., KREIDER
                                                                HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                      MPIF-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SCYD1.
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01-JAN-1998 (TREMBLREL.
01-NOV-1998 (TREMBLREL.
NEUROTACTIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-BALB/C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                     73 FCADPKEKWVQ 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   73 FCADPKEKWVQ 83
:| |||:||||
2 ICLDPKQKWVQ 12
                                                                                                                                                                                                                                                                                                                             2 ICLDPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
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                                                                                                                                                 (TREMBLREL.
(TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                                                                               73.3%;
llarity 72.7%;
Conservative
                                                                                                                                                                                                                                        PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE-BRAIN;
B.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COPELAND N., GILBERT D.J., JENKINS
                                                                                                                                                   04,
08,
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05,05
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05, LAST SEQUENCE UPDATE)
08, LAST ANNOTATION UPDAT
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                                                                                                                                                 CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                           Score 74; DB 11;
Pred. No. 8.15e-04;
2; Mismatches 1
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pred. No. 8.15e-04;
2; Mismatches 1
Υ.,
                                                                                    VERTEBRATA;
                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3997A113 CRC32;
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SALCEDO

MAMMALIA;

EUTHERIA;

PRIMATES;

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RESULT OCCUPANT OCCUP
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Best Local Similarity
Matches 7; Conse
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Best Local :
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O89093; TREMBLEEL 08, C
01-NOV-1998 (TREMBLEEL 08, L
01-NOV-1998 (TREMBLEEL 08, L
CC CHEMOKINE ST38 PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                               000585;
01-JUL-1997
01-JUL-1997
01-NOV-1998
                                                                                                                                                                                                                                                                                     01-JUL-1997 (TREMBLREL. 04, CREATED)
01-JUL-1997 (TREMBLREL. 08, LAST SEQ)
01-NOV-1998 (TREMBLREL. 08, LAST ANN
BETA CHEMOKINE EXODUS-2.
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUBMITTED (JUL-1998) TO EMBL/GENBANK/DDBJ DATA BANKS EMBL; AF053313; G3551819; -. EMBL; AJ007862; E1312757; -.
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MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
MURIDAE; MURINAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WARDELLI B., PIPPALLA V., GENTA G., GENTA G., J. EXP. MED. 0:0-0(0).
EMBL; U85768; G1916252; -...
PFAM: PF00048; 118; 1.
MEDLINE; 97400322.
HEDRICK J.A., ZLOTNIK A.;
"Identification and chara
                                                                                                                                                                                                                                                                   CATARRHINI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   000585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VILLARES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   UTANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                        SUBMITTED
                                                                                                                                                                                SEQUENCE FROM HROMAS R.A., (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIGNAL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      display,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LESSLAUER
                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "A novel rat CC chemokine,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        74 VCADPKQNWV 83
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     splay, is upregulated in br
NEUROIMMUNOL. 0:0-0(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 ICLDPKQKWV 11
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                                                                                                                                                        (JUN-1997)
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                                                                                                                                                                                                                                                                   HOMINIDAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             68.3%;
llarity 70.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                             GRAY
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28
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97
10826 MW;
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13119 MW;
     characterization of
                                                                                                                                                     , KLEMSZ
                                                                                                                                                                                                                                                                   OWOH
                                                                                                                                                  EMBL/GENBANK/DDBJ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   brain inflammation.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             identified
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred.
2; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 69; DB 11;
Pred. No. 1.04e-02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            POTENTIAL.
CC CHEMOKINE ST38.
053405BD CRC32;
                                                                                                                                                                                                                                                                                           VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDF526F0
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                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE UPDATE)
ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 4; Length 6.31e-03; 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             by targeted
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     ω
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MAMMALIA;
MUS.
     novel
                                                                                                                                                  BROXMEYER I
                                                                                                                                                                                                                                                                                              MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DA SILVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 119;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
     beta chemokine
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                                                                                                                                                                          H.;
                                                                                                                                                                                                                                                                                              EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97
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                                                                                                                                                                                                                                                                                              PRIMATES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
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SULI

O88430;
C 088430;
C 088430;
JT 01-NOV-1998 (TREMBLREL. 08, CREATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDA:
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UP
DE CC CHEMOKINE ABCD-1.
OS MUS MUSCULUS (MOUSE).
PUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAY
TUROGNATHI; MURIDAE; MURINAE; MU
  RRRRR OCC DET THE
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Best Local S
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 8; Conser
SEQUENCE FROM N.A.
STRAIN-C57BL/6J;
MEDLINE; 98146056.
GUNN M.D., NGO V.N.,
                                                                 O55038 PRELIMINARY; PRT; 109 AA.
O55038;
O1-JUN-1998 (TREMBLREL 06, CREATED)
O1-JUN-1998 (TREMBLREL 06, LAST SEQUENCE UPDATE)
O1-NOV-1998 (TREMBLREL 08, LAST ANNOTATION UPDATE)
B LYMPHOCYTE CHEMOATTACTANT BLC.
MUS MUSCULUS (MOUSE).
BUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MANMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NIGHIMURA M., KAKIZAKI M., NOMIYAMA H., YOSHIE O.;
SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U88320; G2196920; -B.
EMBL; AF001979; G2624925; -.
EMBL; AB002409; D1022673; -.
EMBL; AB002409; D1022673; -.
PFAM; PF00048; 118; 1.
PFAM; PF00048; 118; 1.
                                                                                                                                                                                                                                                                                                                                                        SHIMIZU T., SEIDL T., ANDERSSON J., MI
SIDERAS P.;
                                                                                                                                                                                                                                                                                                          "Activated murine B lymphocytes and dendritic cells produce a CC chemokine which acts selectively on activated T cells."; J. EXP. MED. 188:451-463(1998).

EMBL; AF052505; G3378116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     containing six conserved cysteines.";
J. IMMUNOL. 159:1589-1593(1997).
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SUBMITTED (MAY-1997) T
                                                           SCIUROGNATHI;
                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                              MEDLINE; 98353531.
SCHANIEL C., PARDALI E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              73 ELCADPKELWVQ
                                                                                                                                                                                                                           74 DICADPROVWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 EICLDPKQKWVQ 12
                                                                                                                                                                                                     EICLDPKQKWV
                                                                                                                                                                                                                                                   Similarity 7; Conser
                                                                                                                                                                                                                                                                                                   92 AA;
                                                                                                                                                                                                                                                  67.3%;
llarity 63.6%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                            MURIDAE;
                                                                                                                                                                                                                           84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              84
                                                                                                                                                                                                                                                                                                  10302 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 68.3%;
66.7%;
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  ANSEL K.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Α.;
                                                           MURINAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                Score 68; DB 11;
Pred. No. 1.72e-02;
2; Mismatches 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 69; DB 4; Pred. No. 1.04e-02
2; Mismatches
                                                           VERTEBRATA;
E; MUS.
                                                                                                                                                                                                                                                                                                  BC7219A0
  EKLAND E.H.,
                                                                                                                                                                                                                                                                                                                                                                     MELCHERS F., R
                                                                                                                                                                                                                                                                                                 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                             MAMMALIA;
MUS.
  CYSTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                       ROLINK A
                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                      EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          EUTHERIA;
  J.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
                                                                                                                                                                                                                                                                            92;
                                                                                                                                                                                                                                                                                                                                                                       A.G
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                                                                                                                                                                                                                                                    0;
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RESULT
AC Q1
AC Q1
AC Q1
AC Q1
DT Q1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 7; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local :
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014745;
014745;
01-NOV-1996
01-NOV-1996
01-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JLT 10
073912
073912;
01-AUG-1998
01-AUG-1998
01-AUG-1998
                                                                                                                 PFAM; PF
SIGNAL.
NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; AFO
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A B-cell-homing chemokine made
Burkitt's lymphoma receptor-1.";
NATURE 391:799-803(1998).
EMBL; AF044196; G2911374;
     NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GALLUS GALLUS (CHICKEN).
EUKARYOTA; METAZOA; CHORDATA;
NEDGNATHAE; GALLIFORMES; PHAS
                                                                                                                                                                                           SUBMITTED (AUG-1995) TO EMBL/GENBANK/DDBJ DATA BANKS EMBL; D63785; G961440; -. PSOSITE; PSO0472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LD78 ALPHA BETA PRECURSOR (FRAGMENT).
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
TISSUE-MACROPHAGE LIKE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   K60
                                                                                                                                                                                                                                                                                                               ISHIZUKA K., IGATA-YI
KATSURAGI S., KIN Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUBMITTED (AUG-1997)
                                                             CHAIN
                                                                                          SIGNAL
                                                                                                                                                                                                                                                                                        МІҮАКАЖА Т.
                                                                                                                                                                                                                                                                                                                                                                             TISSUE=BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATARRHINI; HOMINIDAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Match 67.3%;
Local Similarity 54.5%;
les 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           75 EVCLDPTAPWV 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \vdash
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                                                                                                                                                                               PF00048; 118; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Y14971; E1295103; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1
21
104 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (TREMBLREL.)
(TREMBLREL.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        109 AA;
        80
1
<1
17
80
9 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (TREMBLREL. 01, CREATED)
(TREMBLREL. 01, LAST SEQUENCE UPDATE)
(TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            66.3%;
larity 63.6%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
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104
11199
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                                                                                                                                                                                                                                                                                                               R., NARUSE
OHMOTO Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                               HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07, CREATED)
07, LAST SEQUENCE UPDATE)
07, LAST ANNOTATION UPDATE)
        W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PHASIANIDAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WW
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Pred. No.
4; Misma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 67; DB 13;
Pred. No. 2.82e-02;
1; Mismatches 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL.
K60 PROTEIN.
40C2EF8A CRC32;
     3F87F1C6 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERTEBRATA; ARCHOSAURIA; AVES; IANIDAE; PHASIANINAE; GALLUS.
                                                                                       POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BB6CCC22 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    in lymphoid follicles activates
                                                                                                                                                                                                                                                                                                               K., NAKASHIMA H., NOMIYAMA H., IIO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                             ALPHA BETA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 11; Le..
1.72e-02;
-hos 1;
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M., MIURA R.,
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Q99664;
Q1-MAY-1997;
Q1-MAY-1997;
Q1-NOV-1998;
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SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
STRAIN=SPRAGUE-DAWLEY;
KELNER G.S., MACIEJEWSKI-LENOIR D., LEE E.
KELNER G.S., MACIEJEWSKI-LENOIR D., LEE E.
                                                                                                                                                                                                                                                                                                                                                                                  C CHEMPANAME (RAT).

RATTUS NORVEGICUS (RAT).

EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;

EUKARYOTA; METAZOA; CHORDAE; MURINAE; RATTUS.
                                                                            PFAM;
                                                                                            "A novel rat CC chemokine, identified by targeted display, is upregulated in brain inflammation."; J. NEUROIMMUNOL. 0:0-0(1998).
EMBL; U90447; G1899246; -.
EMBL; AF053312; G3551817; -.
                                                                                                                                                                                                          SEQUENCE FROM N.A.
STRAIN-FISHER 344; TISSUE-BRAIN;
UTANS-SCHNEITZ U., LOREZ H., KLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE; 97275143.
HROMAS R., GRAY P.W.,
BELL G.I., TAKEDA J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHC
CATARRHINI; HOMINIDAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAY-1997 (TREMBLREL.
01-MAY-1997 (TREMBLREL.
01-NOV-1998 (TREMBLREL.
CHEMOKINE EXODUS.
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broom 89:3315-3322(1997).
EMBL; U64197; G17978117; -
PROSITE: PS00472; SMALL_CYTOKINES_CC;
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                                                                                                                                                                                            ESSLAUER W.;
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Similarity 50.0%;
6; Conservative
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                                        10875 MW;
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Pred. No. 7.51e-02;
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7.51e-02;
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BJ DATA BANKS.
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093442; PRELIMINARY; PRT;
093442; PRELIMINARY; PRT;
1 093442; PRELIMINARY; PRT;
1 01-NOV-1998 (TREMBLREL 08, LAST SEQUENC OF 101-NOV-1998 (TREMBLREL 08, LAST ANNOTAY ELFCA-1 PROTEIN PRECURSOR LAMPREY).

SE LAMPETAR FLUVIATILIS (RIVER LAMPREY).
SE LAMPETAR FLUVIATILIS (RIVER LAMPREY).
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015467 PRELIMINARY;
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01-JAN-1998 (TREMBLREL 0
01-JAN-1998 (TREMBLREL 0
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SEQUENCE
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YOUN B.S., ZHANG S., BROXMEYER IN HANGOC G., KWON B.S.;
"Isolation and characterization"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IL-10-INDUCIBLE CHEMOKINE.
ILINCK OR SCYA16.
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
  TISSUE-LEUKOCYTES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PFAM; PF00048; il8; 1.
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activity.";
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                             SEQUENCE FROM N.A.
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50.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BROXMEYER H.E., ANTOL K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of 181 kb containing five CC chemokine genes."; O EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMUN.
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EMBL/GENBANK/DDBJ I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FUKUDA
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LAST ANNOTATION UPDATE
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1; M
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4;
                                                                                                          VERTEBRATA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     247:217-222(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A079DF66 CRC32;
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ANNOTATION UPDATE)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          f LMC, a novel lymphocyte and
chemokine, with myelosuppressive
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DATA
                                                                                                            CEPHALASPIDOMORPHI;
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                                                                                                                                                                                               UPDATE)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 120;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BANKS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IMAI T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JR.,
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Best Local S
Matches
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Best Local Similarity
Matches 6; Conser
                                                                                                                                                                                   043646 PRELIMINARY;
043646; OTREMBLREL. (
01-JUN-1998 (TREMBLREL. (
01-JUN-1998 (TREMBLREL. (
01-NOV-1998 (TREMBLREL. (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              O93238 PRELIMINARY;
O93238,
01-NOV-1998 (TREMBLREL. 0
01-NOV-1998 (TREMBLREL. 0
01-NOV-1998 (TREMBLREL. 0
      "Structure of a region of 1
SUBMITTED (AUG-1998) TO EMB
EMBL; AF043341; G2905632; -
EMBL; AF088219; G3719366; -
PROSITE; PS00472; SMALL_CYT
SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Identification of the interleukin 8 homologue in lamprey fluviatilis); early evolutionary divergence of chemokines SUBMITTED (JUL-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AJ231072; E1313821; -
                                                                                              JANG J.S., KIM B.E.;
SUBMITTED (JAN-1998)
                                                                                                                                               HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                              EMBL;
                                                                                                                                                                                                                                                                                                                                                                     SUBMITTED
                                                                                                                                                                                                                                                                                                                                                                               eotaxins."
                                                                                                                                                                                                                                                                                                                                                                                                                                EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTER TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINOIDEA; CYPRINIDAE; CYPRINIAE; CYPRINIDAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              CYPRINUS CARPIO (COMMON CARP).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
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                                                                   MAKYIMON
                                                                           SEQUENCE FROM N.A.
                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                     CATARRHINI; HOMINIDAE;
                                                                                                                                                                             RANTES PRECURSOR
                                                                                                                                                                                                                                                                                                                                                                                                   FUJIKI K.,
                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHAIN
                                                                                                                                                                                                                                                                                                                                                                                       CDNA cloning of a carp
                                                                                                                                                                                                                                                                                        72 EFCSDPKLRWV 82
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                                                                                                                                                                                                                                                                     EICLDPKQKWV
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                                                                                                                                                                                                                                                                                                                      Similarity
                                                                   Ξ.;
                                                                                                                                                                                                                                                                                                                                                                     (JAN-1998) TO EMBL/GENBANK/DDBJ DATA
                                                                                                                                                                                                                                                                                                                                                    101 AA;
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                                                                                                                                                                                                                              PRELIMINARY;
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                 SMALL_CYTOKINES_CC;
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101
11095
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63.6%;
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                                                                                                                                                                                                                                                                                                                                                   11266 MW;
23
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arp CC chemokine homologous
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                                              of 181 kb containing five CC OEMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                        OMOH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 888
                                                                                                                                                                                       866
                                                                                              EMBL/GENBANK/DDBJ
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LAST SEQUENCE
LAST ANNOTATIO
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDAT
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Pred. No. 1.97e-01;
3; Mismatches 3
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2; 1
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LFCA-1 PROTEIN.

; E4A1E20F CRC32;
POTENTIAL
                                                                                                                                                                                                                             PRT;
                                                                                                                                                VERTEBRATA;
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                                                                                                                                                                                       ANNOTATION
                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                     No.
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3.16e-01;
-hes 2;
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                                                                                               DATA
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                                                                                               BANKS
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                                                         chemokine
                                                                                                                                                EUTHERIA;
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                                                         genes.";
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                                                                                                                                                                                                                                                                                                            Gaps
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RESULT ID QS AC C QS DT 0: 0 OC C QS RR RR RX
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Best Local S
Matches
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Best Local :
                                                                                                                                                                                  Matches
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Q98158 PREL

Q98158; 012569;

01-FEB-1997 (TRE

01-JUL-1997 (TRE

01-NOV-1998 (TRE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            043927
043927;
043927;
01-JUN-1998
01-JUN-1998
01-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CHAIN
SEQUENCE
SEQUENCE;
                                                                                                                                                                                                                                                                                                                           "A B-cell-homing chemokine made in Burkitt's lymphoma receptor-1."; NATURE 391:799-803(1998).
                            VIRUSES; DSDNA VIRU
GAMMAHERPESVIRINAE;
                                           KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS
                                                          ORF
                                                                                                                                                                                                                                                                                      NAPOLITANO M., SPINETTI G., GAETANO C., CAPOGROSSI C SUBMITTED (OCT-1997) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                      GUNN M.D., NGC
WILLIAMS L.T.;
                                                                                                                                                                                                                                                                                                                                                                                                     lymphoid
J. EXP. M
                                                                                                                                                                                                                                                 SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. MEDLINE; 98146056.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                        SIGNAL
                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                BAGGIOLINI M., MOSER B.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATARRHINI; HOMINIDAE;
                                                                                                                                                                                                                                                                                                                                                                                                                      "B cell-attracting chemokine 1,
                                                                                                                                                                                          Local Similarity
                                                                                                                                                             75 VCVDPQAEWIQ 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         71 QVCANPEKKWVR
                                                                                                                                            N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHEMOKINE PRECURSOR
                                                                                                                                           ICLDPKQKWVQ
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                                                                                                                                                                                                                                                          AJ002211; E1249325; -. AF044197; G2911376; -. AF029894; G3169814; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity 5; Conse
                                                                                                                                                                                                                                                                                                                                                                                                      MED.
 FROM N.A.
97094384.
                                                                                                                                                                                                                                                                                                                                                                                                    tissues, selectively MED. 187:655-660(1998)
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                                                                7 (TREMBLREL. 02,
7 (TREMBLREL. 04,
8 (TREMBLREL. 08,
                                                                                                                                                                                                                                                                                                                                                                NGO V.N.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (TREMBLREL. 06,
(TREMBLREL. 06,
(TREMBLREL. 08,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60.4%;
larity 41.7%;
Conservative
                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                               23
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                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AA;
                            VIRUSES, NO RNA STAGE; INAE; RHADINOVIRUS.
                                                                                                                                                                                                                       ΑA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         82
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109 F
12664 MW;
                                                                                                                                                                                          60.4%;
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9990
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                                                                                                                                                                                                                                                                                                                                                                K.M.,
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                                                               CREATED)
LAST SEQUENCE UI
LAST ANNOTATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                          Score 61; DB 4;
Pred. No. 5.06e-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 61; DB 4;
Pred. No. 5.06e-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RANTES.
CF404FAD
                                                                                                                                                                                                                     POTENTIAL.
POTENTIAL.
BE5A46BC CRC32;

    a human CXC chemokine expressed in
attracts B lymphocytes via BLR1/CXCR5.";

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                EKLAND
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                                     HERPESVIRIDAE;
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                                                                                                                                                                                                                                                                                               CAPOGROSSI C.M.;
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                                                                UPDATE)
                                                                                                                                                                                                   Length 109;
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Best Local S
Matches
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Q67634;
Q67634;
Q1-NOV-1996 (TREMBLREL 01, C)
Q1-NOV-1996 (TREMBLREL 01, C)
Q1-NOV-1998 (TREMBLREL 08, L)
ECO Q PROTEIN (FRAGMENT);
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EMBL; U75698; G1718266; -.
EMBL; U75858; G1658273; -.
EMBL; U93877; G2246546; -.
EMBL; U71366; G3551763; -.
                                                                                                                                                                                 GALLID HERPESVIRUS TYPE 1.
VIRUSES; DSDNA VIRUSES, NO RNA STAG
ALPHAHERPESVIRINAE; VARICELLOVIRUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.

SEQUENCE FROM N.A., CHIEN M.C., CHEN J., YAN M., MADDALENA RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN Y., MOORE P.S.; PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.; SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RUSSO J.J.,
PARRY J.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           genes by KSHV.";
SCIENCE 274:1739-1744(1996).
                                                                  MEDLINE; 96074534.
PENG Q., ZENG M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HYPOTHETICAL E
SEQUENCE 95
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NEIPEL F., ALBRECHT J.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NICHOLAS J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.; "Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus (HHV8).";
  "Isolation and characterization mapping to the BamHI-I2, BamHI-C
                                               SHIRAZI
                                                                                                                      STRAIN-GA;
                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B. "Cell-homologous genes in the Kaposi's sahuman herpesvirus 8: determinants of its J. VIROL. 71:4187-4192(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUBMITTED
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOORE P.S., BASHOFF C.,
"Molecular mimicry of h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
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                                                                  ZENG M., BHUIYAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (OCT-1996)
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, PERUZZI D., EDE:
(OCT-1996) TO EMB:
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larity 50.0%;
Conservative
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lzation of Marek's disease virus (MDV) cDNAs
BamHI-Q2, and BamHI-L fragments of the MDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 G.;
                                                                  Z.A.,
                                                                                                                                                                                                                                                                           CREATED)
LAST SEQUENCE UE
LAST ANNOTATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 60; DB 14; L
Pred. No. 8.07e-01;
3; Mismatches 3;
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                                                                                                                                                                                                         STAGE;
                                                                    UBUKATA E.,
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s sarcoma-associated r
its pathogenicity?";
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                                                                                                                                                                                                           HERPESVIRIDAE
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                                                                                                                                                                                                                                                                                                   UPDATE)
                                                                       TANAKA
                                                                                                                                                                                                                                                                              UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 95;
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                                                                    Α.,
                                                                    NONOYAMA M.,
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Best Local Similarity
Matches 6; Conser
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Best Local Similarity
                                                                                                                                                                                                                                              ULT 22
000626 PRELIMINARY;
000626;
01-JUL-1997 (TREMBLREL. 04
01-JUL-1997 (TREMBLREL. 04
01-NOV-1998 (TREMBLREL. 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            genome from lymphoblastoid cells transformed and persistently infected with MDV.";
VIROLOGY 213:590-599(1995).
EMBL; U34966; G1185444; -.
PFAM; PF00048; i18; 1.
NON_TER 1
                                                                                      HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADÂMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.; "HOMO SAPIENS CHOROSOME 16 BAC CLONE CIT987SK-A-152E5."; SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; U91835; G1889259; -.
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EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
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01-MAY-1997 (TREMBLREL. (
01-NOV-1998 (TREMBLREL. (
CX3C CHEMOKINE PRECURSOR
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MEDLINE; 97177111.

BAZON J.F., BACON K.B., HARDIMAN G., WANG W., SOO K.,

GREAVES D.R., ZLOTNIK A., SCHALL T.J.;

"A new class of membrane-bound chemokine with a CX3C

"NATURE 385:640-644(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       T 21
P78423 PRELIMINARY;
P78423; 000672;
   SEQUENCE FRO
                                                                                                                                                                                                MACROPHAGE-DERIVED CHEMOKINE MDC OR A-152E5.1.
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FROM N.A.
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203 AA; 23132 MW;
                                                                                                                                                                                                                                           (TREMBLREL. 04, CREATED)
(TREMBLREL. 04, LAST SEQUENCE UPDATE)
(TREMBLREL. 08, LAST ANNOTATION UPDAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
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RAPORT C.J.,
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Pred. No. 8.07e-01
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Pred. No. 8.07e-01
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CX3C CHEMOKINE.
; C8093D7D CRC32;
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                                                                                                                                                                                                                          PRECURSOR
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                                                                                                                          VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                         PRT;
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SOZZANI S.,
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                                                                                                                          MAMMALIA;
                                                                                                                                                                                                                                                           UPDATE)
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   ALLAVENA
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                                                                                                                          EUTHERIA;
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RESULT
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Best Local S
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ULT 24
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01-NOV-1998
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SEQUENCE
                                                                                                                                                                                                                                                                                                                                                MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.

ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN ADAMS M.D., LOFTUS B.J., KERLAVAGE A.R., VENTER J.C.;

BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;

"Homo sapiens Chromosome 16 BAC clone CIT987SK-A-152E

SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.

EMBL; U83239; G2062425; -.
                                                                                                                                              SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ
EMBL; U88322; G3169697; -.
MGD; MGI:1097677; SCYA21.
PFAM; PF00048; 118; 1.
SEQUENCE 133 AA; 14600 MW; B34A5E22 CF
                                                                                                                                                                                                                                               HROMAS R., KIM C.H., KLEMSZ M., KRATHWOHL M., FIFE K., CO SCHNIZLEIN-BICK C., BROXMEYER H.E.;
"Isolation and characterization of Exodus-2, a novel C-C with a unique 37-amino acid carboxyl-terminal extension."
J. IMMUNOL. 159:2554-2558(1997).
                                                                                                                                                                                                                                                                                                                                                                                                01-JUL-1997 (TREMBLREL. 04,
01-AUG-1998 (TREMBLREL. 07,
01-NOV-1998 (TREMBLREL. 08,
BETA CHEMOKINE EXODUS-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CHANG M.S., MCNINCH J., ELIAS III C., MANTHEY C.L., MENG T., BOONE T., ANDREW D.P.; SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MANTOVANI A.,
                                                                                                                                                                                                                                                                                                         TISSUE-TOTAL FETUS; MEDLINE; 97444139.
                                                                                                                                                                                                                                                                                                                                                                                         SCYA21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; AC004382; G3252820; -. PFAM; PF00048; 118; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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                                                                                                                                                                                                                TISSUE-TOTAL FETUS;
                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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                                                         EICLDPRQKWVQ
                                                                    ELCANPEEGWVQ
                                                                                                              Similarity
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25
93 AA;
            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
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                                                                                                              58.4%;
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93
10580
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                                                                                                 Score 59; DB 11;
Pred. No. 1.28e+00;
3; Mismatches 3
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LAST ANNOTATION UPDAT
                                                                                                                                                                                                                                                                                                                                                                                                                                  CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 59; DB 4; I
Pred. No. 1.28e+00;
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MACROPHAGE-DERIVED CHEMOKINE.
65EA63D2 CRC32;
                                                                                                                                                                                                                                                                                 ., KRATHWOHL H.E.;
            PRT;
                                                                                                                                               B34A5E22 CRC32;
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            133
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RESULT 25

ID 002426

AC 002426;

DT 01-JUL-1997 (
DT 01-VUV-1998 (
DE SNAIL HOMOLOG
GN CI-SNAIL.
OS CIONA INTESTI
OC EUKARYOTA; ME
OC CIONIDAE; CIC
RN [1]
RP SEQUENCE FROM
RA CORBO J.C., E
RL DEVELOPMENT 0
DR EMBL; AF00298
DR PROSITE; PS00
DR PRAM; PF000986
KW ZINC-FINGER;
SO SEQUENCE 58
RESULT 26
ID 082387
AC 082387;
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Best Local :
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SUBMITTED (MAY-1997) TO EMBL/G
EMBL; AF006637; G2209189; -.
EMBL; AF001980; G2624927; -.
MGD; MGI:1097677; SCYA21.
PFAM; PF00048; 118; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE; 9740U322.

MEDLINE; 9740U322.

HEDRICK J.A., ZLOTNIK A.;

"Identification and characterization containing six conserved cysteines.";

TMMUNOL. 159:1589-1593(1997).
                                                                                                                                                                                                                                                                                                                CORBO J.C., ERIVES A., DI GREGORIO A., CHANG A. DEVELOPMENT 0:0-0(0).
EMBL; AF002987; G2196753; -.
PROSITE; PS00028; ZINC_FINGER_C2H2; 4.
PFAM; PF00096; zf-C2H2; 5.
ZINC-FINGER; METAL-BINDING; DNA-BINDING.
SEQUENCE 584 AA; 64756 MW; B1DE5647 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SCYALI.

MUS MUSCULUS (MOUSE).

EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;

-------NATHI: MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-JUL-1997 (TREMBLREL. 04, CREATED)
01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UP
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION
SMALL INDUCIBLE CYTOKINE A21 (TCA4).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CIONA INTESTINALIS. EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TANABE S., LU Z., LUO Y., QUACKENBUSH E.J., BERMAN M.A., COLLINS-RACIE L.A., MI S., REILLY C., LO D., JACOBS K.A., SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CIONIDAE; CIONA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SNAIL HOMOLOG.
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                                                                                                                                                                        397 VCLDSKTTWRO 407
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                                                                                                                        ICLDPKQKWVQ
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                                                                                                                                                                                                                         Similarity 6; Conser
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                       PRELIMINARY;
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larity 50.0%;
Conservative
                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                58.4%;
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08,
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                                                                                                                                                                                                                       Score 59; DI
Pred. No. 1.2
2; Mismatch
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pred. No. 1.28e+00;
3; Mismatches 3
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                         PRT;
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1.28e+00;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Α.,
                                                                                                                                                                                                                                                                  Length 584;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DORF M.E.;
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RESULT 28
ID 017348
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JLT 27
P70357;
P70357;
01-FEB-1997 (
01-FEB-1997 (
01-NOV-1998 (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RBP.
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LIPOCALIN.
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-FEB-1997 (TREMBLREL.
01-FEB-1997 (TREMBLREL.
01-NOV-1998 (TREMBLREL.
PLASMA RETINOL-BINDING I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).

EUKARYOTA; VIRIDIPLANTAE; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;

TRACHEOPHYTA; EUPHYLLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;

EUDICOTYLEDONS; ROSIDAE; CAPPARALES; BRASSICACEAE; ARABIDOPSIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    T27A16.22.
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01-NOV-1998 (TREMBLREL.
01-NOV-1998 (TREMBLREL.
PUTATIVE CELL DIVISION :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PLASMA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN-B6/CBAFIJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                 176 ELCLERQYRWIE 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97 VCLEVKSKW 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
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                                                                                                                                                        EICLDPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VITAMIN A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
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19
22
138
201
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ilarity 55.6%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                          18
201
178
147
23206 1
                                                                                                                                                           12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RETINOL-BINDING; TRANSPORT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . 08, CREATED)
. 08, LAST SEQUENCE UPDATE)
. 08, LAST ANNOTATION UPDATE)
PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROTEIN PRECURSOR (PRBP) (RBP).
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02, LAST SEQUENCE UPDATE)
08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                      MW;
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                                                                                                                                                                                                                                                                                                                                                                                      BY SIMILARITY.
PLASMA REFINOL-BINDING F
BY SIMILARITY.
BY SIMILARITY.
W; AA915F05 CRC32;
                                                                                                                                                                                                                                                                       Score 57; DB 11;
Pred. No. 3.17e+00;
5; Mismatches 3
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2.02e+00;
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                                                                                                                                                                                                                                                                                                                                    Length 201;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LIVER;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIGNAL;
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sequence.";
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PRELIMINARY;

PRT;

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Best Local S
Matches
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                                                                                                                                                                                                                                                                                            Q99126
Q99126;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD J.,
BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A., CRAXTON M.,
DEAR S., DU Z., DURBIN R., FAVELLO A., FULFON L., GARDNER A., GREEN P.,
HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,
KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
KIRSTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
MCMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
RIFKEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SNITH A.,
SONNHAMMER E., STADEN R., SULSTON J., THIERRY-MIEG J., THOMAS K.,
VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
WILKINSON-SPROAT J., WOHLDMAN P.;
                                                                                               SEQUENCE FROM N.A.
STRAIN-RK32 (A2B3);
XOCONOSTLE-CAZARES B., LEON-RAMIREZ
MICROBIOLOGY 142:377-387(1996).
EMBL; X87748; G861151; -.
SEQUENCE 760 AA; 85181 MW; 2F24C
                                                                                                                                                                                                                                                    01-NOV-1996 (TREMBLREL.
01-NOV-1996 (TREMBLREL.
01-MAY-1997 (TREMBLREL.
                                                                                                                                                                                    USTILAGO MAYDIS (SMUT FUNGUS).
EUKARYOTA; FUNGI; BASIDIOMYCOTA; USTILAGINOMYCETES;
USTILAGINOMYCETIDAE; USTILAGINALES; USTILAGINACEAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
STRAIN-BRISTOL N2;
MAGGI L., HARPER M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. STRAIN-BRISTOL N2; MEDLINE; 94150718.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RHABDITINA; [1]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBMITTED (SEP-1997) TO EMBL/GENBANK/DDBJ DATA BANKS EMBL; AF026207; G2435555; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAENORHABDITIS ELEGANS.
EUKARYOTA; METAZOA; NEMATODA;
                                                                                                                                                                                                                                           CHITIN SYNTHETASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-BRISTOL N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBMITTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NATURE 368:32-38(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "2.2 Mb of contiguous nucleotide sequence from chromosome III of
elegans.":
             483 EICAETKGKW 492
                                                                                                                                                                                                                                                                                                                                                                                  126 NVCLSPERRW 135
                                                             Local Similarity
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 EICLDPKQKW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HARPER M.;
(OCT-1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                               331 AA;
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                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
 10
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                                                             56.4%;
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01,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DDA; SECERNENTEA; RHABDITIA; RHABDITIDA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                    CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                      Score 57; DB 5; I
Pred. No. 3.17e+00;
                                              Score 57; DB 3; 1
Pred. No. 3.17e+00
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                           4.
                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                  2F24C4C9 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
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                                                                       DB 3; Length 760;
                                                                                                                                       RUIZ-HERRERA
                                                                                                                                                                                                                                                                                                        8
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                                               Ψ
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                                               Indels
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                                               Gaps
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RESULT 30
1D 064975;
AC 064975;
AC 074975;
DT 01-AUG-1998 (TREMBLREL. 07, CREATED)
DT 01-AUG-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DT 01-NOV-1998 (TREMBLREL. O8, LAST ANNOTATION UPDATE)
DT 01-NOV-1998 (TREMBLREL. O8, LAST ANNOTATION UPDATE)
DT 01-NOV-TER 158 AA; 18235 MW; 12D846C9 CRC32;
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Search completed: Thu Job time : 31 secs.
                                                                                                                                         Query Match
Best Local S
                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                        EUDICOTYLEDONS; ROSIDAE; CAPPARALES; BRASSICACEAE; ARABIDOPSIS [1]
                                                                                              121 CLEPREAW 128
                                                                3 CLDPKQKW 10
                                                                                                                                            Similarity
                                                                                                                              4;
                                                                                                                              Conservative
                  Apr
                                                                                                                                         55.4%;
                  1 07:34:46 1999
                                                                                                                          Score 56; DB 10;
Pred. No. 4.95e+00;
3; Mismatches 1
                                                                                                                                                          Length 158;
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### 1994   1994   1994   1994   1994   1994   1994   1994   1995	1 92 97.9 67 14 R73915 2 92 97.9 99 13 R708016 2 92 97.9 99 13 R708016 3 92 97.9 109 2 R24353 4 889 94.7 66 24 W13598 6 89 94.7 66 24 W13599 6 89 94.7 68 24 W13597 7 89 94.7 68 24 W13597 8 89 94.7 69 14 R87678 8 89 94.7 76 14 R87676 11 89 94.7 76 10 R53398 12 89 94.7 76 14 R87675 13 89 94.7 76 14 R87675 14 88 94.7 76 14 R87675 15 89 94.7 76 14 R87675 16 89 94.7 76 12 W11131 17 89 94.7 76 12 W11131 18 9 94.7 76 14 R87677 19 94.7 76 17 R87677 19 94.7 76 18 R87677 10 R89 94.7 76 14 R87677 11 R89 94.7 76 12 W11131 12 R89 94.7 76 14 R87677 13 R89 94.7 76 15 R87680 16 R89 94.7 76 15 R87680 17 R89 94.7 76 15 R87680 18 99 94.7 76 15 R87680	illy er	Searched: 131922 seqs, 16180660 residues  Post-processing: Minimum Match 0%	Psrch_pp protein - protein database un on: Thu Apr 1 07:38:21 abular output not generated. itle: >US-08-927-939-11 escription: (1-12) from US089279 erfect Score: 94 equence: 1 EICADPSQKWVQ 12 coring table: PAM 150 Gap 15	**************************************
### STATES   Human monocyte chemoa   2.5   ### STATES   STATES   STATES   STATES   STATES   ### STATES   STATES   STATES   ### STATES   STATES   STATES   STATES   STATES   STATES   STATES   ### STATES   ### STATES   STATES			<u> </u>		
94.7 99 14 R73914 Human monocyte chemoa 2.5 94.7 99 13 R78663 MCF. 25 24 99.1 879663 PC Chemoattraccant prote 2.5 94.7 99 12 R78663 PC Chemoattraccant prote 2.5 94.7 99 12 R78663 PC Chemoattraccant prote 2.5 90.4 71 27 W22672 Bac 2 chemokine betal 6.8 90.4 98 17 R23673 Bac 2 chemokine betal 6.8 92 W22674 Bac 1 chemokine betal 6.8 92 W22674 Bac 2 chemokine betal 6.8 92 W22674 Bac 1 chemokine betal 6.8 92 W22674 Bac 2 chemokine betal 6.8 92 W22670 Bac 2 chemokine betal 6.8 92 W22671 Bac 2 chemokine betal 6.8 92 W22671 Bac 2 chemokine betal 6.8 92 W22671 Bac 1 chemokine betal 6.8 92 W22671 Bac 2 chemokine betal 6.8 92 W22671 Bac 1 chemok	74 75 77 77 77 77 77 88 88 88 88 88 88 88 88	77776687665437777777777777777777777777777777777	**************************************	35 35 36 36 36 36 36 36 36 36 36 36 36 36 36	3322887 34332
4.7 99 14 R73914 Human monocyte chemoa 2.5 9 15 R28663 KCF. 4.7 99 15 R78866 Chemoattractant prote 2.5 9 15 R78866 Chemoattractant prote 2.5 9 17 R78900 Chemoattractant prote 2.5 12 12 12 12 12 12 12 12 12 12 12 12 12		111111111111111111111111111111111111111	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	82 81 81 81 81 81 81 81 81 77	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
14 R73914 Human monocyte chemoa 2.5   5				11155555555555	4444
R73914 Human monocyte chemoa 2.5 R788665 MCF. R788665 Chemoattractant prote 2.5 R788666 Chemoattractant prote 2.5 R788666 Chemoattractant prote 2.5 R78866 Chemoattractant prote 2.5 R78867 Human monocyte chemo 2.5 R782673 Bac 3 chemokine beta1 6.8 W22671 Bac 1 chemokine beta1 6.8 W22671 Bac 2 chemokine beta1 6.8 W22671 Bac 1 chemokine beta1 6.8 W22671 Human chemokine beta1 6.8 R76127 Kamino acid sequence 0.1 R76127 Human cytckine beta1 1.8 R776127 Human cytckine beta1 1.8 R	σουσοσοσοσοσοσοσοσο	, <u></u>	νουοφοροσοσ	00200777000400 40144444	000000000000000000000000000000000000000
monocyte chemoa 2.5 ttractant prote 2.5 chemokine beta 6.8 chell mobilities 6. chemokine beta 6.8 chell mobilities 6. chemokine	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		*********	*************	~~~ <u>~~~~~~</u>
	Ala2>Ser. 4.73 Ala4>Ser. 4.73 Phe28>Glu. Arg47 4.73 Phe28>Glu. Arg47 4.73 Phe28>Ala. 4.73 Phe15>Ala. 4.73 Asp5>Arg. 4.73 Asp5>Arg. 4.73 Arg40>Arg. 4.73 Tyr61>Asp. 4.73 Thr30>Ala. 4.73 Asp64>Ser. 4.73 Asp64>Ser. 4.73 Asp64>Vall. 4.73 Ala3>Glu. 4.73 Ala3>Glu. 4.73 Ala3>Glu. 4.73 Ala3>Glu. 4.73	Arg/7/Ser. 4.73 Arg/7/Ser. 4.73 Gln18/Ser. 4.73 Asp5/Ser. 4.73 Asp5/Ser. 4.73 Phe12/Ala. 4.73 Ser13/Ala. 4.73 Ser13/Ala. 4.73 Ser68/Ala. 4.73 Pro37/Ala. 4.73 Pro37/Ala. 4.73 Pro37/Ala. 4.73 Pro37/Ala. 4.73 Asp64/Arg. 4.73 Asp64/Arg. 4.73 Asp64/Arg. 4.73	11e24>Thr. 4.73 Arg45>Ser. 4.73 Glu66>Ser. 4.73 Glu66>Ser. 4.73 Gln18>Glu. 4.73 Thr6>Ala. 4.73 Phe23>Asn Ile24 4.73 Lyu56>Ser. 4.73 Glu56>Ser. 4.73 Glu56>Ser. 4.73 Glu56>Ser. 4.73 Asp26>Ala. 4.73 Asp26>Ala. 4.73	lu55>8ln, Glu56 1.42 acid sequence o 1.81 acid sequence o 1.81 cytokine beta-1 1.81 dendritic cell 1.81 dendritic cell 1.81 ectaxin ell 1.81 ectaxin C 1.81 eosinocyte CC 1.30 lu48>Glu, Glu48 2.30 lu55>Arg, Glu56 2.30 lu55>Arg, Glu56 4.73 b78 Thr15>Phe. 4.73 erf3>Ala.	monocyte chemoa 2.57  ttractant prote 2.57  monocyte chemo- 2.57  chemokine betal 6.85  ce of bovine 96  3.74  ce of p6 precur 8.74

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PA (SHRX) SHAWAL R.

PA (YALS/) VAN ALSTYNE D.

PA (YALS/) VAN ALSTYNE D.

PI Sharma LR, Van Alstyne D;

PI Sharma LR, Van Als
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Best Local S
Matches 1
                                                                               09-FEB-1995.
26-JUL-1994; U08207.
29-JUL-1993; US-099866.
13-OCT-1993; US-136117.
        (UPJO ) UPJOHN CO.
Hoogwerf AJ, Ledbe
WPI; 95-082239/11.
N-PSDB; Q85371.
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93
94
95
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98
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29-AUG-1995 (first entry)
Chemoattractant protein MCP-3.
MCP-3; chemoattractant; heparanase; heparin; heparan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human monocyte chemoattractant factor hMCP-3: chemokine; vaccine; Human monocyte chemoattractant factor; hMCP-3; chemokine; vaccine; meningitis related homologous antigenic sequence; MRHAS; RV-1; immunoassay; diagnosis; treatment; prophylactic; bacterial;
                                                                                                                                                                           Homo sapiens.
WO9504158-A.
                                                                                                                                                                                                                       arthritis; restenosis; cancer;
                                                                                                                                                                                                                                                                                                                             R70801 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R73915 standard;
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28-SEP-1994; CA0516.
28-SEP-1993; US-127499.
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WO9509232-A.
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                                                                                                                                                                                                                                                                                                                                                                                                              Identified by matching
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Similarity 91.7%;
11; Conservative
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R38949
R38950
R38925
R38923
P91030
R04221
R36769
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Pred. No.
1; Misma
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. 1.23e-02;
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MIP-lalpha.
MIP-lbeta.
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Protein encoded by pA
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ACT-2.
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Monocyte chemoattractant protein analogue MCP-1 (10-76).
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Query Match
Best Local S
Matches 1
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Best Local Similarity 91.7%;
Matches 11; Conservative
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03-JUN-1992.
29-NOV-1990; FR-014961.
(ERAP) ELF SANOFI.
(SNFI) SANOFI SA.
Caput D, Ferrara P, Miloux B
WPI: 92-185765/23.
W13598 standa
W13598;
W13598;
07-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Fig 2; 45pp; French.

This protein is encoded by the NC28 clone isolated from peripheral blood mononuclear cells stimulated with phorbol 2-myristate-3-acetate (see Q25259). The mature protein is claimed. It can be N-terminally deleted such that the mature protein starts at Val 3 or at Lys 19. The leader sequence is active in animal cells. See Q25258-Q25262.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Screening for cpds. with anti-heparanase activity - by detection inhibition of heparin or heparan sulphate degradation, potentially useful for treating arthritis, restenosis, cancer Claim 13; Page 50; 60pp; English.

Purified heparanases, prepared under reducing conditions and purified heparanases, prepared under reducing conditions and activated with transglutaminase, are given in R70786-801. Mos are prepared by reverse transcription of mana from activated leukocytes, then cloning of the CDNA into purified to the condition of 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-NOV-1992 (first entry)
Cytokine encoded by clone NC28.
Cytokine; plasmid pSE1; HTLV-1; human T-lymphocyte virus;
mouse; alpha-globin; E.coli cloning vector; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New monocyte chemo:attractive cand parasitic infections, e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                vector, and expression in Sf9 cells in the presence glutathione and dithiothreitol.
Sequence 99 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB; Q25259
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                                                                                                                                                                                               83 eicadptqkwvq (
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|||||||:|||||
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                                                                   standard;
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11; Conser
      (first entry)
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/note= "putative"
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39..41
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                                                                   peptide;
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91.78;
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                                                                                                                                                                                                                                                                                                                               Score 92; DB 2; Ler
Pred. No. 1.23e-02;
1; Mismatches 0;
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Pred. No. 1.
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                                                                                                                                                                                                                                                                                                                                                                                            Length 109;
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or Chagas
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At lacks were a superior anti-inflammatory agent
ps Disclosure; page 5; 27pp; English.

CC The present sequence represents an analogue, which lacks the
CC Chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC Chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
                     RESULT
AC WILL
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PS Disclosure; Page 5; 27pp; English.

CC The present sequence represents an analogue, MCP-1 (10-76), of monocyte

CC Chemoattractant protein-1 (MCP-1). The analogue, which lacks the

CC N-terminal amino acids 1-9 of MCP-1, acts as an antagonist of MCP-1

CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1

CC receptor. The analogue is useful as an anti-inflammatory agent to block

CC the effects of MCP-1 which is an inflammatory mediator causing migration

CC of monocytes and other cells e.g. basophils and lymphocytes into

CC inflammation sites. MCP-1 has been implicated in allergic and chronic

CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung

CC diseases. The analogue competes more effectively with MCP-1 for binding

CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably

CC providing 50% inhibition of binding at a 25:1 ratio or less, compared

CC with 75:1 for prior art mutant 7ND.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gong J, Lewis 1; WPI; 97-165844/16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Monocyte chemoattractant protein analogue MCP-1 (11-76). Truncated monocyte chemoattractant protein-1; inhibitor; receptor binding; anti inflammatory; basophil; lymphocyte; allergy; chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Truncated monocyte chemoattractant protein-1; inhibitor; receptor binding; anti inflammatory; basophil; lymphocyte; allergy; chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) lacks MCP-1 activity and inhibits receptor binding, useful as
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19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W13599 standard;
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19-JUN-1995; 152141.
19-JUN-1995; CA-152141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (LEWI/) LEWIS I.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  peptide; 67 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94.7%;
91.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 89; DB 24; pred. No. 2.57e-02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 66;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Printi-inflammatory agent
Claim 7; Page 5; 27pp; English.
CC laim 7; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (9-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the CC receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory agent to block CC the effects of MCP-1 which is an inflammatory mediator causing migration CC inflammation sites. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung CC diseases. The analogue competes more effectively with MCP-1 for binding CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably croviding 50% inhibition of binding at a 25:1 ratio or less, compared SQ Sequence 68 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
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Best Local
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Homo sapiens.
CA2152141-A.
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                                                                                                                                                                                                                         Monocyte chemoattractant protein analogue MCP-1 (8-76). Truncated monocyte chemoattractant protein-1; inhibitor; receptor binding; anti inflammatory; basophil; lymphocyte; chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                                                                                                                                                                                                                                                                      W13596 standard; peptide; 69
W13596;
07-NOV-1997 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gong J, Lewis I; WPI; 97-165844/16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Monocyte chemoattractant protein analogue MCP-1 (9-76). Truncated monocyte chemoattractant protein-1; inhibitor; receptor binding; anti inflammatory; basophil; lymphocyte; chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                                                                       Homo sapiens.
CA2152141-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
                       (LEWI/)
                                                    19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-terminally truncated monocyte chemo:attractant protein-1 lacks MCP-1 activity and inhibits receptor binding, useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-NOV-1997 (first entry)
                                                                                                                  20-DEC-1996.
                                                                                                                                                                                                  lung disease.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       41 eicadpkqkwvq 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 EICADPSQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             eicadpkqkwvq 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94.7%;
llarity 91.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              94.7%;
91.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 89; DB 24
Pred. No. 2.57e-
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 89; DB 24;
Pred. No. 2.57e-02;
                                                                                                                                                                                                                                                                                                                                                                                                 A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 24; 1
2.57e-02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          allergy;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PT N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) -PT lacks MCP-1 activity and inhibits receptor binding, useful as PT anti-inflammatory agent
PT anti-inflammatory agent
CC chemostractant protein-1 (MCP-1). The analogue, MCP-1 (8-76), of monocyte
CC chemoattractant protein-1 (MCP-1). The analogue, which lacks the
CC n-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block
CC the effects of MCP-1 which is an inflammatory mediator causing migration
CC of monocytes and other cells e.g. basophils and lymphocytes into
CC inflammation sites. MCP-1 has been implicated in allergic and chronic
CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung
CC diseases. The analogue competes more effectively with MCP-1 for binding
CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
CC with 75:1 for prior art mutant 7ND.
SQ Sequence 69 AA;
                                                                                                                                           Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis

Claim 4; Page 11; 22pp; English.

Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations substitution of 28-Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
                                                 Best Loc
Matches
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Best Local
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WO9513295-A1.
18-MAY-1995.
07-NOV-1994; U12874.
                                                                                                                                                                                                                                                                                                                                                                                      12-NOY-1993; US-152301.
(DAND ) DANA FARBER CANCER INST INC.
ROllins B, Zhang YJ;
WPI; 95-215051/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                monocyte chemoattractant protein; MCP-1; mutant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R87678 standard; protein; (R87678; R97678; (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              angioplasty.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   des(2-8) MCP-
                                                                                                                                  undergoing
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                 43
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|||||| |||||
1 EICADPSQKWVQ 12
                                                                   Local
eicadpkqkwvq
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Similarity 91.7%;
11; Conservation
                                                 Similarity
11; Conser
                                                                                                                    coronary
69 AA;
                                                   Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note= "amino acids 2-8 of been deleted between these
                 54
                                                               94.7%;
                                                                                                                                  artery angioplasty.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   69
                                               Score 89; D
Pred. No. 2.
0; Mismatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 89; DB 24;
Pred. No. 2.57e-02;
                                                 Mismatches
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                                                               DB 14;
2.57e-02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the native protein have residues"
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                                                 Indels
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Claim 5; Page 11; 22pp; English.

Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations substitution of 28 Tyr by aspartate; (2) substitution of 28 Tyr by aspartate; (2) substitution of 4 Arg by Phe; (3) substitution of 3 Tyr by aspartate; (2) substitution of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 94.7%;
Best Local Similarity 91.7%;
Matches 11; Conservative
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07-NOV-1994; U12874.
12-NOV-1993; US-152301.
(DAND ) DANA FARBER CANCER II
ROLlins B, Zhang YJ;
WPI; 95-215051/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               disulfide_bond disulfide_bond w09513295-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Monocyte chemotactic protein 1.

Human; monocyte chemoattractant protein; antisense; inhibition; mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
                                                                                               05-NOV-1996.
22-OCT-1992; 965678.
22-OCT-1992; US-965678.
27-MAY-1994; US-250958.
                                                                                                                                                                                                                                                                                     /note=
misc_difference 65
                              (UNMI ) UNIV MICHIGAN.
Kunkel SL, Lyle LR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W09374 standard; Protein; 76 W09374;
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21-FEB-1996
                                                                                                                                                                                                                                                       US5571713-A.
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96-505405/50.
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                                                                                                                                                                                                                                             PT Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and prophide(s) - is used for inhibiting, treating or imaging areas of rescular restenosis or potential restenosis

PT vascular restenosis or potential restenosis

PS Disclosure; Page 5; 42pp; English.

The sequences given in R53398-99 represent sense and antisense conscipled the may be labelled with a radionuclide and use oligonucleotides may be labelled with a radionuclide and use therapeutically for the treatment of vascular restenosis.

Radiolabelled antisense MCP-1 compounds we constructed using high cenergy alpha or beta emitting isotopes rather than the gamma emitters cutomarily used for diagnostic purposes. Antisense MCP-1 compounds inactivate MCP-1 or inhibit production of MCP-1 so that compounds inactivate MCP-1 or inhibit production of MCP-1 so that compounds are not attracted to the area of vascular injury and Scephence 76 AA;
                                                                                                                                                                             Query Match
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R87675 stand:
R87675;
R87675;
21-FEB-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) - useful for therapy or diagnosis of restenosis, etc. Disclosure; Column 13-14; 16pp; English. This is the amino acid sequence of the human monocyte chemoattractant protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent stimulator of monocyte chemotaxis and is produced by injured vascular smooth cells thus attracting monocytes and macrophages which infiltrate the injured area and release growth factor. This causes proliferation of the vascular smooth cells resulting in restenosis. The gene sequence can be used to generate antisense sequences e.g. T48093-7, which can be used to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or macrophages, or smooth muscle cells, esp. in order to prevent vascular restriction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1; radionuclide; vascular restenosis; alpha; beta; emitting isotope;
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R53398;
15-DEC-1994 (first entry)
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20.-CCT-1993; U10074.
22.-CCT-1992; US-965678.
(M_CCW ) MALLINCKRODT MEDICAL INC
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nes 11; Conse
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llarity 91.7%;
Conservative
(first entry)
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                                   protein; 76 AA
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91.78;
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Pred. No. 2.57e-02;
0; Mismatches 1
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2.57e-02;
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Best Local Similarity
Matches 11; Conser
                                                                                                                              25-FEB-1997.
05-OCT-1992; 956862.
05-OCT-1992; US-956863.
05-OCT-1992; US-956862.
05-OCT-1994; US-235659.
(MLCW) MALLINCKRODT MEDICAL INC.
(UMMI) UNIV MICHIGAN.
Kunkel SL, Lyle LR, Strieter RM;
WPI; 97-153541/14.
                                                                                                                                                                                                                                                                                                                                                    10-JUN-1997 (first entry)

Mature human monocyte chemoattractant protein-1 (MCP-1).

MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8;

MCP-1; maturophil activating peptide; labelling; imaging; targeting;

radionuclide; infection; inflammation; neoplasm; atheromatous lesio
targetted delivery of radioactive agent Example 10; Column 19-20; 15pp; English.
W11131 represents mature human monocyte chemoattractant protein-1 (MCP-1). MCP-1 was radionuclide labelled and used in a method for imaging a target site in vivo in an animal. Labelled MCP-1 was allowed to accumulate at a target site (having MCP-1 receptors) in the animal and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28 Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989. The peptides can be used to prevent restenosis, e.g. in patients
                                                                                                                                                                                                                                                                                                                                                                                                                                                       W11131 standard; protein; W11131;
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12-NOV-1993; US-152301.
(DAND ) DANA FARBER CANCER INST INC
ROllins B, Zhang YJ;
WPI; 95-215051/28.
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                                                                                                               Radio: labelling neutrophil-activating peptide(s) -
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76 AA;
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CC Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the cubstitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino CC acids 2-8. The present sequence is a specifically claimed human MCP-1 card cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1999.

CC The peptides can be used to prevent restenosis, e.g. in patients cundergoing coronary artery angioplasty.
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R87677;
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                        modified_site
                                                Key
                                                                         Human.
                                                                                              17-JAN-1990 (first entry)
Peptide from human glioma cell line U-105MG
Glioma; leucocyte; chemotaxis; neoplasms.
                                                                                                                                                    P90292 standard; peptide; 76
P90292;
17-JAN-1990 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-NOV-1994; U12874.
12-NOV-1993; US-152301.
(DAND ) DANA FARBER CANCER
ROllins B, Zhang YJ;
WPI; 95-215051/28.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (3-Ala) MCP-
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/label= OTHEF
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Pred. No. 2
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No. 2.57e-02;
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2.57e-02;
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                                             12-NOV-1992.
27-APR-1992;
09-MAY-1991;
                                                                                                                 RBS; promoter Synthetic. W09219737-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           wound treatment using monocyte chemotactic factor - has potent therapeutic effect on skin wounds and ulcers Disclosure; Page 12; 22pp; Japanese.
The invention relates to a new remedy for curing wounds which, instead of comprising a growth factor, comprises a monocyte chemotactic activating a growth factor, comprises a monocyte chemotactic activating factor (MCAF) or its variants or derivatives. The factor has potent effect on skin wounds and ulcers. The present sequence is human MCAF, the activity of which is exemplified as the new remedy.
                                                                                                                                                                                                                                                                R28660 standard; Protein; 76
R28660;
24-MAR-1993 (first entry)
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Peptide is derive
leukocytes and ha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New peptide with specific chemotactic activity for r from glioma or leucocyte cells, useful for treating
(DAIN ) DAINIPPON PHARM CO LTD Fukui T, Matsuo N, Yamada M, Y.
                                                                                                                                                                                       Plasmid; monocyte chemotactic factor; MCF; translation; termination; terminator; initiation; ribosome binding s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matsushima K, Nar
WPI; 95-131181/17.
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13-SEP-1994; J01512.
13-SEP-1993; JP-2273
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R87680;
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                                                                                                                                                                promoter; tryptophan;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            h 94.7%;
Similarity 91.7%;
11; Conservative
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Matsuo N, Yamada M, Yamagishi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; page 3; 46pp; English.
derived from glioma cell line U-105MG
and has mol. wt. 8400. Used to treat i
76 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            76 AA;
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91.7%;
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Appella E;
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Pred. No. 2.57e-02;
0; Mismatches 1
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Pred. No. 2.57e-02;
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RESULT
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Matches 1
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Prodn. of polypeptide(s) having monocyte chemotactic activity - using expression plasmids with E. coli elements and specific E. coli strains
E. coli strains
Claim 1; Page 48 + Page 36; 56pp; English.
An expression plasmid, pHMA83, for producing MCF(76) consisting of 76 amino acids was constructed. The prod. can be used for e. treating bacterial infectious diseases.

Sequence 76 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mature MCP-1.
Antisense; monocyte chemotactic protein-1; MCP-1;
"C-C" family; chemoattractant cytokine; chemokine;
monocyte; chemotaxis; vascular smooth muscle cell;
proliferation; restenosis; balloon angioplasty.
                                                                                                                                                                                                                                                                                            for this cell type. MCP-1 is produced by injured vascular smooth muscle cells and attracts the monocytes and macrophages which infiltrate the area, releasing growth factors and resulting in proliferation of vascular smooth muscle and restenosis. Nucleic acid molecules which are antisense to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may be useful for inhibiting vascular restenosis, partic. following balloon angioplasty or a related process. The molecule may be radiolabelled to increase its therapeutic effect or for imaging areas of potential
                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 5; 50pp; English.

This sequence represents the mature form of monocyte chemotactic protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of chemoattractant cytokines or chemokines. It is a potent stimulator of monocyte chemotaxis and has an extensely high degree of specificity for this coll time.
                                R73914 standard; protein;
R73914;
05-DEC-1995 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New anti:sense oligo:nucleotide(s) and peptide(s) for inhibiting restenosis - are directed against C-C family cytokine(s) such a monocyte chemotactic protein, opt. radio:labelled for therapy or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens. W09519167-A1.
Human monocyte chemoattractant factor hMCP-1. Human monocyte chemoattractant factor; hMCP-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lyle LR, Thomas-M: WPI; 95-263703/34.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-JUL-1995.
13-JAN-1995; U00605.
14-JAN-1994; US-182917.
(MLCW ) MALLINCKRODT MEDICAL INC
                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                  restenosis.
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                                                                                                                                                    51 eicadpkqkwvq
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                                                                                                                                   EICADPSQKWVQ
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11; Conse
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                                                                                                                                                                                                                 Similarity
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                                                                                                                                                                                                                                                                   77 AA;
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llarity 91.78;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                  Conservative
                                                                  protein; 99 AA.
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                                                                                                                                   12
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                                                                                                                                                                                                                94.78;
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Pred.
0; M
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Pred. No. 2.57e-02;
0; Mismatches 1
                                                                                                                                                                                               re 89; DB 15; ]
d. No. 2.57e-02;
Mismatches 1
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                                                                                                                                                                                                                             Length 77;
 chemokine; vaccine;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PT New peptide(s) and corresp. antibodies for the treatment of presented in the peptide(s) corresp. to homologous antigenic pressites on bacterial and viral agents and on chemokine(s), used for preside on bacterial and viral agents and on chemokine(s), used for presenting and preventing meningitis and on chemokine(s), used for present of the chemokine Human monocyte chemoattractant factor hmCP-1. CC R73914 is the chemokine Human monocyte chemoattractant factor hmCP-1. CC rotains the meningitis related antigenic sequences (MRHAS) claimed in R73907, which are recognised by a monoclonal antibody corresponding to immunoassays to diagnose the presence of bacterial cc and/or viral meningitis agents in a sample, or in prophylactic and therapeutic meningitis treatments. The peptides may also be used as covaccines against meningitis.

CC NB: Identified by matching corresponding MRHAS peptides.

SQ Sequence 99 AA;
  Query Match
Best Local S
Matches 1
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Best Local
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                                                                                                     Disclosure; Page 43-44; 56pp; English.
An expression plasmid, pHMCO76 for producing MCF(76) consisting of 76 amino acids was constructed. DNA encoding MCF(76) was prepd. using a recombinant plasmid pHMCF7.
Sequence 99 AA;
                                                                                                                                                                                                                                                                                                                                          12-NOV 1992.
27-APR-1992; J00550.
09-MAY-1991; JP-135950.
(DAIN ) DAIMIPPON PHARM CO LTD.
FUKUI T, Matsuo N, Yamada M, Yamagishi J;
WPI; 92-398864/48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               T 20
R28663
                                                                                                                                                                                                                                          N-PSDB; Q30748.

Prodn. of polypeptide(s) having monocyte chemotactic activity using expression plasmids with E. coli elements and specific E.coli strains
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(VALS/) VAN ALSTYNE D.
Sharma LR, Van Alstyne
WPI; 95-147431/19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-SEP-1994; CA0516.
28-SEP-1993; US-127499.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9509232-A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RBS; promoter; tryptophan;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Plasmid; monocyte chemotactic factor; MCF; translation; termination; terminator; initiation; ribosome binding s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R28663;
24-MAR-1993
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immunoassay; diagnosis; treatment; prophylactic; bacterial;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                73
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      eicadpkqkwvq
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94.7%;
larity 91.7%;
Conservative
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24..99
/label= mat_protein
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Score 89; DB 5; I
Pred. No. 2.57e-02;
0; Mismatches 1
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No. 2.57e-02;
                                                  Length 99;
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Best Local
                      Human derived monocyte chemo-attractant peptide prods. - obtd. from human glioma cell line U-105MG or peripheral blood mononuclear leukocytes. Disclosure; fig 2; 66pp; English.

This is a human-derived monoyte chemo-attractant peptide (MCP-1) sequence MCP-1 exhibits optimal chemotactic activity at a concn. of lnM and has a mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg inflammatory disease, or for the control of monocytes at the site of the infection. The corresp. DNA is obtd. by chemical synthesis, by screening reverse trascripts of mRNA from purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Screening for cpds. with anti-heparanase activity - by detecting inhibition of heparin or heparan sulphate degradation, potentially useful for treating arthritis, restenosis, cancer. Purified heparanases, prepared under reducing conditions and activated with transglutaninase, are given in R70786-804. Most are prepared by reverse transcription of mRNA from activated human leukocytes, then cloning of the cDNA into pVIJ392 baculovirus vector, and expression in Sf9 cells in the presence of reduced glutathione and dithiothreitol.
chemical synthesis, by sci
purified blood leukocytes
Sequence 99 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-JÜL-1989;
30-MAR-1989; 330446.
30-MAR-1989; US-330446.
(USSH) US Dept. Health and Human.
Yoshimura T, Robinson EA, Appella
WPI; 89-300683/41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         r 22
P95387 standard; protein;
P95387;
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Hoogwerf AJ, Ledbe
WPI; 95-082239/11.
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MCP-1; chemoattractant; heparanase; heparin; heparan sulfate; arthritis; restenosis; cancer; wound healing.
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29-JUL-1993; US-099866.
13-OCT-1993; US-136117.
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W09504158-A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human monocyte chemo-attractant peptide-1.
Human monocyte chemo-attractant peptide; inflammatory disease; neoplasms
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73 eicadpkgkwvg 84
|||||| |||||
1 EICADPSQKWVQ 12
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Pred. No. 2.57e-02;
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Query Match

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Score

89; DB 2;

Length 99;

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RESULT 23
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AC W22675;
AC W22675;
AT 19-MAR-
DT 19-MAR-
DT 19-MAR-
DT 19-MAR-
DT 19-MAR-
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EW Wound h
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RESULT
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Example 11; Fig 5; 83pp; English.

The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) Drol3+ variant, which can be used to treat patients deficient in Ck beta10, while a Ck beta10 antagonist can be used to reduce excessive levels of Ck beta10. Ck beta10 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic diseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, regulates haematopoiesis and generates antibodies. Labelled Ck beta10 can be used to identify its cognate receptor, while cells expressing the receptor can be used to screen compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and be used to infectious diseases, allergies, prostaglandin dependent fever and be used to infectious diseases, allergies, prostaglandin dependent fever and be used to infectious diseases, allergies, prostaglandin dependent fever and be used to infectious diseases, allergies, prostaglandin dependent fever and be used to infectious diseases.
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Best Local
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Matches 11; Conservative
                                                                                                       19.MAR-1998 (first entry)

19.MAR-1998 (first entry)

Bac 3 chemokine beta10 or monocyte chemotactic protein 4 variant. Human; chemokine beta10; Ck beta10; treatment; antagonist; solid tumour; infection; autoimmune disease; asthma; antibody; fibrotic disease; psoriasis; neurodegenerative disease; wound healing; haematopoiesis regulation; gene therapy; chromosome identification; monocyte chemotactic protein 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  W22673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  syndrome, lung inflammation and achievacterosis. The control of the used to isolate genes encoding similar peptides, in generation and for chromosome identification.
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                                                   chromosome identification, melleukaemia; MCP-4; Bac 3 variant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (HUMA-) HUMAN GENOME SCI INC.
Adams M, Alderson R, Applebaum E,
Parmelee D, White J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-FEB-1996; U02598.
23-FEB-1996; WO-U02598
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    Homo sapiens.
WO9731098-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 97-435153/40.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19-MAR-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       standard; Protein; 75 AA.
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llarity 83.3%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 85; DB 27;
Pred. No. 6.85e-02;
1; Mismatches 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 71;
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Best Local
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            Example 11; Fig 5; 83pp; English.

The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) Bac 2 variant, which can be used to treat patients deficient in Ck beta10, while a Ck beta10 antagonist can be used to reduce excessive levels of Ck beta10 cx beta10 can be used to treat leukaemia, soild tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic diseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, regulates haematopoiesis and generates antibodies. Labelled Ck beta10 can be used to identify its cognate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19-MAR 1998 (first entry)

Bac 2 chemokine beta10 or monocyte chemotactic protein 4 variant.

Human; chemokine beta10; Ck beta10; treatment; antagonist;

solid tumour; infection; autoimmune disease; asthma; antibody;
fibrotic disease; psoriasis; neurodegenerative disease;

wound healing; haematopoiesis regulation; gene therapy;
chromosome identification; monocyte chemotactic protein 4;
                                                                                                                                                                                                                                                                                                                                       Polypeptide encoding chemokine beta protein 4 - useful to treat tumours, asthma and fibrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                (HUMA-) HUMAN GENOME SCI INC.
Adams M, Alderson R, Applebaum E, Li H,
Parmelee D, White J;
WPI: 97-435153/40.
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23-FEB-1996; U02598.
23-FEB-1996; WO-U02598.
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WO9731098-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      r 25
W22672 standard; Protein; 77 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-AUG-1997.
23-FEB-1996; U02598.
23-FEB-1996; WO-U02598.
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Pred.
1; M
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. No. 6.85e-02;
Mismatches 1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Y, Lima
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to screen
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Š
                                                                                                                                                                                                                                                                                                rasthna and fibrosis

Example 11; Fig 5; 83pp; English.

Commoncyte chemotactic protein 4 (MCP-4) Droll/2 variant, which can commoncyte chemotactic protein 4 (MCP-4) Droll/2 variant, which can commoncyte chemotactic protein 4 (MCP-4) Droll/2 variant, which can commoncyte chemotactic protein 4 (MCP-4) Droll/2 variant, which can commoncyte chemotactic protein 4 (MCP-4) Droll/2 variant, which can commoncyte chemotactic protein 4 (MCP-4) Droll/2 variant, which can comported to treat pattents deficient in Ck betall, while a Ck betall can be used to treat leukaemia, solid tumours, chronic or comportunistic infections, autoimmune diseases, asthma, fibrotic compounds wound healing, regulates haematopoiesis and generates cantidodies. Labelled Ck betall can be used to identify its cognate compounds for (ant)agonist activity. The antagonist can be used to creat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and common common common dependent fever and common common common dependent fever and common comm
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                                                                                              Query Match
Best Local Similarity
Matches 10; Conser
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Best Local
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                                                                                                                                                                                                       syndrome, lung inflammation and atherosclerosis. Ck beta10 cDNA can be used to isolate genes encoding similar peptides, in gene therapy and for chromosome identification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Droll/2 chemokine betal0 or monocyte chemotactic protein 4 variant. Human; chemokine betal0; Ck betal0; treatment; antagonist; solid tumour; infection; autoimmune disease; asthma; antibody; fibrotic disease; psoriasis; neurodegenerative disease; wound healing; haematopoiesis regulation; gene therapy; chromosome identification; monocyte chemotactic protein 4; leukacmia. MCD.4. NCD.4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic syndrome, lung inflammation and atherosclerosis. Ck betal0 cDNA can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Adams M, Alderson R, Parmelee D, White J; WPI; 97-435153/40.
                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Polypeptide encoding chemokine beta 4 and protein 4 - useful to treat tumours, auto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19-MAR-1998 (first entry)
Droll/2 chemokine beta10 o
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W22674;
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                                            53 eicadpkekwvq
1 EICADPSQKWVQ
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CONOME SCI INC.
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                                                                                                                      90.48;
83.38;
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                                                                                           Score 85; DB 27;
Pred. No. 6.85e-02;
1; Mismatches 1
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Pred. No. 6.85e-02;
1; Mismatches 1
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autoimmune disease, infec
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RESULT

LT 27
W22671 standard; Protein;
W22671;

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Best Local
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Haematopoietic cell; parasitic infection; colony stimulating factor; haematoregulator; immune response; bacterial infection; transplant; wound healing; bone marrow; immunosuppression; regeneration;
Ten new chemokine(s) able to mobilise stem ce increased levels of haematopoietic cells are increase resistance to infection Claim 7; Page 11-12; 24pp; English.
The present sequence represents a chemokine, of mobilising stem cells. The chemokine can kimprove stem cell mobilisation, optionally to
                                                                                                                                                                                                                                                           (SMIK ) SMITHKLINE BEECHAM CORP.
Kreider BL, Li H, Pelus L, White JR,
WPI; 97-258956/23.
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23-OCT-1996; U16959.
24-OCT-1995; US-006051.
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Bac 1 chemokine beta10; or monocyte chemotactic protein 4 variant.
Human; chemokine beta10; Ck beta10; treatment; antagonist;
solid tumour; infection; autoimmune disease; asthma; antibody;
fibrotic disease; psoriasis; neurodegenerative disease;
wound healing; haematopoiesis regulation; gene therapy;
chromosome identification; monocyte chemotactic protein 4;
leukaemia; MCP-4; Bac 1 variant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  wound healing; bone marrow; immunosuppression; regeneration; neoplastic disease; viral disease; gene therapy; cytotoxic drug.
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23-FEB-1996; U02598.
23-FEB-1996; WO-U02598.
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Pred.
1; M
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No. 6.85e-02;
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are required,
e, CKbeta-10, which is capable n be used therapeutically to together with a colony
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red, e.g. to
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RESULT
ID W3
AC W3
DT 21

IT 30
W30191 standard; Protein; 98
W30191;
W30191;
21-MAY-1998 (first entry)

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29-FEB-1996.
23-AUG-1994; U09484.
23-AUG-1994; WO-U09484.
08-SEP-1994; ZA-006936.
                                                                                                                                                                                                                                                                                     to treat, e.g. leukaemia, solid tumours and auto-inmune diseases. Claim 19; Fig 2; 53pp; English.

A novel human chemokine, Ck beta-10 (R93087), was identified as the product of a cDNA clone (T17050) isolated from a 9-wk early human tissue cDNA library. The protein is structurally related to the chemokine family. Recombinant Ck beta-10 can be obtd. by incorporating the cDNA into a vector and expression of the protein in e.g. E. coli, COS or Sf9 cells. Ck beta-10 can be used to tressolid tumours, chronic infections, psoriasis, asthma and allergy, to regulate haematopoiesis, promote wound healing, and to inhibit angiongenesis. It can also be used to inhibit bone marrow stem ce.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    stimulating factor or other haematoregulatory agent. It can be used wherever an increased level of haematopoietic cells is needed, e.g. to increase the immune response to chronic infection (particularly bacterial or parasitic), to promote wound healing, in (transplant) patients with reduced bone marrow function as a result of immunosuppressive treatment or disease, and to provide more rapid regeneration of bone marrow after treatment for neoplastic or viral diseases. The induced stem cells may be harvested for subsequent return to the patient, optionally after they have been genetically manipulated to deliver a selected gene product (gene therapy). The cells may be co-administered with a cytotoxic drug.
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                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                     colony
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB; T17050.
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                                                                                                                      Similarity
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D, Li H;
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                                                                                                                   Conservative
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Job time : 21 secs.
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Claim 1; Page 36-37; 47pp; English.

CC laim 1; Page 36-37; 47pp; English.

CC This polypeptide comprises human macrophage-derived

CC monocyte chemotactic protein-5 (MCP-5), a novel C-C chemokine.

CC Its amino acid sequence was deduced from a cDNA clone (see

CT 90880 and T90883) isolated from a human macrophage cDNA

CC Library. A claimed method for producing MCP-5 comprises

CC culturing a host cell that is stably transformed or transfected

CC with MCP-5 polynucleotide. Also claimed is a hybridoma that

CC reactive with the mature MCP-5. (or its analogues and

CC fragments) is used to enhance the immune response in cases of

CC useful as anti-inflammatories in cases of e.g. arthritis and

CC crohn's disease, also for treatment of atherosclerosis,

CC angiogenesis and tumour growth (or metastasis). The MCP-5

CC inhibit replication of HIV. MCP-5 can also be used to identify

CC its cognate receptor, while MCP-5 peptides (or the analogues or

CC its cognate receptor, while MCP-5 activity and to identify

CC MCP-5 agonists and antagonists.

SO Sequence 98 AA;
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Matches
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02-0CT-1997; U04898.
26-MAR-1996; US-622851.
(ICOS-) ICOS CORP.
Godiska R, Gray PW;
WPI: 97-489645/45.
N-PSDB; T90880.
Polynucleotide encoding monocyte chemotactic protein-5 - useful in treatment of e.g. inflammation, atherosclerosis, anglogenesis and
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Monocyte chemotactic protein 5; MCP-5; human; macrophage;
chemokine; inhibitor; antlinflammatory; atherosclerosis;
Crohn's disease; arthritis; angiogenesis; tumour; metastasis;
therapy; diagnosis; medical imaging.
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This protein induces proteinase secretion and chemotaxis
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Molecular cloning of MCP-3: a human monocyte-derived monocyte
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Human monocyte chemotactic protein-3 (MCP-3): Molecular
cloning of the cDNA and comparison with other chemokines.
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The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome
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#title Structure of human monocyte chemotactic protein gene and
regulation by TPA.
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##residues 1-99 ##label ROL
##cross-references GB:M30816; GB
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##residues 1-120 ##label RES
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Similarity 83.3%;
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monocyte chemoattractant protein 1 precursor - human
GDCF-1; glioma-derived monocyte chemotactic factor 1; MCAF;
MCP-1; monocyte chemotactic factor 1; monocyte secretory
protein; tumor-derived chemotactic factor 2
glioma-derived chemotactic factor 2
formal_name Homo saptens #common_name man
20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change
M.I.; Leonard, E.J.

FEBS Lett. (1989) 244-487-493

Human monocyte chemoattractant protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse competence gene JE.
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The human homolog of the JE gene encodes a mono
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Shyy, Y.J.; Li, Y.S.; Kolattukudy, P.E. Blochem. Biophys. Res. Commun. (1990) 1
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A35474; A33476; S03339; I51841; A60299; A32300; A32396;
A34561; I57488; JC1096
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#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
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#molecular-weight 13741
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Pred. No. 4.80e-07
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                                                                                                                                 S.K.; Appella,
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#title
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# journal Blochem. Blophys. Res. Commun. (1990) 167:904-909

# title Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel N-terminally processed form.

# cross-references MUID:90211336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      #authors Furutani, Y.; Nomura, H.; Notake, M.; Oyamada, Y.; Fukui, Yamada, M.; Larsen, C.G.; Oppenheim, J.J.; Matsushima, #journal Blochem. Blophys. Res. Commun. (1989) 159:249-255 Cloning and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCAF).
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#journal Adv. Exp. Med. Biol. (1991) 305:47-56
#title Human monocyte chemoattractant protein-1 (MCP-1).
#cross references MUID:92095166
#accession I51841
                                                                      #authors Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhi.
J.F.; Kolattukudy, P.E.
#journal Mol. Cell. Biochem. (1993) 126:61-68
#title The expression of monocyte chemotactic protein (MCP-1) in human vascular endothelium in vitro and in vivo.
#cross-references MUID:94150478
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#residues 1-99 ##label FUR
##cross-references GB:M24545; NID:g187434; PID:g307163
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##cross-references GB:S71513; NID:g240867; PID:g240868
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##cross-references GB:X14768; NID:g34513; PID:g34514
##experimental_source glioma cell line U-105MG
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##residues 'X',25-99 ##label ROB
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A chemoattractant expressed in human sarcoma cells
(tumor-derived chemotactic factor, TDCF) is identical to
monocyte chemoattractant protein-1/monocyte chemotactic
activating factor (MCP-1/MCAF).
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                      translated from GB/EMBL/DDBJ
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Best Local Similarity 91.7%;
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AP_position 17q11.2-17q12

FICATION #superfamily macrophage inflammatory protein
                                                                                                                                                                                    ##molecule_type mRNA
##residues
##residues
##residues
#I-99 ##label ZAC
##cross-references EMBL:X79416; NID:9872312; PID:9872313
##CICATION #superfamily macrophage inflammatory protein
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##residues 24-28,'Q',30-99 ##label YEQ
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##cross-references GB:S69738; NID:g545464; PID:g545465
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Biochem. Biophys. Res. Commun. (1994) 199:962-968

Porctine luteal cells express monocyte chemoattractant

protein-1 (MCP-1): Analysis by polymerase chain reaction
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        monocyte chemoattractant protein 1 precursor - pig
#formal_name Sus scrofa domestica #common_name domestic
30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
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                                                                                                     ##molecule_type protein
##residues 50.68,'X',70-74,'X',76 ##label WE2
##experimental_source seminal vesicle
##experimental_source seminal vesicle
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##cross-references GB:M84602; GB:M85264; NID:g163394; PID:g163395
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                                                                                                                                                                                                                                                                               Gene expression and cDNA cloning identified a major basic protein constituent of bovine seminal plasma as bovine monocyte-chemoattractant protein-1 (MCP-1).
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Scheit, K.H.
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#journal
#title
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      #authors Yoshimura, T.; Yuhki, N.

J. Immunol. (1991) 146:3483-3488

#title Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and expression in spleen cells.

#cross-references MUID:91225489
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##cross-references GB.M57440; NII::g165469; PID::g165470
##COATION #superfamily meacrophage inflammatory protein
RY #length 125 #molecular-weight 13776 #checksum
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Blochem. Blophys. Res. Commun. (1994) 202:1272-1279
Characterization of the bovine monocyte chemoattractant
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monocyte chemoattractant protein-1 - bovine
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20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
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Pred. No. 9.85e-06;
1; Mismatches 1
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1; Mismatches 1
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Pred. No. 1.62e-05;
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#accession C60407
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##experimental_source dermal fibroblast
This protein has eosinophil specific chemotatic activity.
FICATION #superfamily macrophage inflammatory protein
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macrophage inflammatory protein 1-beta precursor - human
cytokine HC21; G-26 protein; H400 homolog; lymphocyte
activation gene 1 protein (LAG-1); MIP-1beta; pAT744; SCYA2
                                                                                                                                                                                                                                                                            #superfamily macrophage inflammatory protein
#length 50 #checksum 9927
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J. Immunol. (1990) 144:4434-4441
Monocyte adherence results in selective induction of novel genes sharing homology with mediators of inflammation antissue repair.
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Biochem. Biophys. Res. Commun. (1996) 225:1045-1051
Human dermal fibroblasts express ectaxin: Molecular cloning, mRNA expression, and identification of ectaxin sequence
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JC4912
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#product eotaxin #status predicted #label MAT
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Pred. No. 3.04e-04;
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#title
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Fauthors Chang, H.C.; Reinherz, E.L.

#Journal Eur. J. Immunol. (1989) 19:1045-1051

Eur. J. Immunol. (1989) 19:1045-1051

Isolation and characterization of a cDNA encoding a putative cytokine which is induced by stimulation via the CD2

**Extracture on human T lymphocytes.**

#cross-references MUID:89325421
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Seuanez, H.N.; Leonard, W.J.
#journal J. Biol. Chem. (1991) 266:17531-17536
#title The gene encoding the Acceptable of Structure,
#TIV-I/tax responsiveness of 5' upstream sequences, and
chromosomal localization.
#cross-references_MUID:91373378
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#title
                                                                                                                                                                                                                                 #journal J. Immunol. (1989) 142:1582-1590
#title Mitogenic activation of human T cells induces two closely related genes which share structural similarities with a new family of secreted factors.

#cross-references_MID:89140347
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                                                                                                                                 ##residues 1-19,'L',21-92 ##label ZIP ##cross-references GB:M25316; NID:g602454;
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##cross-references GB:X16166; NID:g32035; PID:g32036
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##residues 1-92 ##label LIP
##cross-references GB:J04130; NID:g178017; PID:g178018
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##cross-references GB:M69201; NID:g178021
##note 15-Ala was also found
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##cross-references GB:X53682; NI
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     A45817
Miller, M.D.; Hata, S.; Malefyt, R.D.W.; Krangel, M.S.
J. Immunol. (1989) 143:2907-2916
A novel polypeptide secreted by activated human T
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Zipfel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.;
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Proc. Natl. Acad. Sci. U.S.A. (1988) 85:9704-9708

Identification, cloning, and characterization of an
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#authors
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#title
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*accession A35673
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#accession D30552
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#cross-references PDB:1HUM
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#residues 1-39, 'REASS', 46-92 ##label BRO
##cross-references GB:M23502; NID:g533212; PID:g533213
                                                                                             ##residues
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##cross-references GDB:127451; OMIM:153335
IP_position 17921-17921
Itrons 26/1; 64/2
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                                                             ##cross-references GB:D90144; NID:g219905; PID:d1014875; PID:g219906
                                                                                                           ##molecule_type DNA
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Local Similarity 66.7%;
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This protein is secreted by activated lymphocytes and monocytes. is bound by chemokine (C-C) receptor 5 (see PIR:A43113) and receptor 1 (see PIR:A45177).
A30574
Zipfel,
U.
                                                                                                                                                                                                                                                                                                                                            A30574 #type complete
macrophage inflammatory protein 1-alpha precursor - human
LD78-alpha protein precursor; lymphocyte tumor
promoter-induced protein; macrophage inflammatory protein
homolog GOS19-1; MIP-lalpha; pAT464; small inducible
cytokine A3; T-cell activation protein 1
#formal_name Homo sapiens #common_name man
03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G. J. Immunol. (1989) 142:679-687
A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocyte and fibroblast-derived inflammatory agents, growth factors, and indicators of various activation processes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                #domain signal sequence #status predicted #label SIG\
#product macrophage inflammatory protein 1-beta #status
experimental #label MAT\
#disulfide_bonds #status experimental
#length 92 #molecular-weight 10212 #checksum 7597
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              #superfamily macrophage inflammatory protein
chemotaxis; cytokine; inflammation
                                                                                                                                                                                                           Structures of human genes coding for cytokine LD78
                                                                                                                                                                                                                                 Nakao, M.; Nomiyama, H.; Shimada, K. Mol. Cell. Biol. (1990) 10:3646-3658
                                                                                                                                                                                                                                                                                                     A35673; A30574; A30412; A24198; A30908
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                                                                                                                                                                                       expression
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                                                                                        1-92 ##label NAK
                   P.F.; Balke,
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Pred. No. 3.04e-04;
                   J.; Irving,
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              S.G.; Kelly,
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                 K.; Siebenlist,
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#map_position 17q11-17q21
CLASSIFICATION #superfamily macrophage inflamma
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               #authors Obaru, K.; Fukuda, M.; Maeda, S.; Shimada, K.
#journal J. Biochem. (1986) 99:885-894
#title A cDNA clone used to study mRNA inducible in human tonsillar
promoter.

#tross-references MUID:86223879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 #journal J. Immunol. (1989) 142:1582-1590
#title Mitogenic activation of human T cells induces two closely related genes which share structural similarities with a new family of secreted factors.

#cross-references MUID:89140347
                                                                                                                                                     #accession
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                                                                          ##residues 1-93 ##label NAK
##cross-references GB:D90145; NID:g219907; PID:d1014876;
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##residues 1-92 ##label OBA
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NCE A30412
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##residues 1-92 ##label ZIP
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                                                                                                           ##molecule_type DNA
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Similarity 66.7%;
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LD78-beta protein precursor - human
macrophage inflammatory protein homolog
inducible cytokine A4
Blum, S.; Forsdyke, R.E.; Forsdyke, D.R.
DNA Cell Biol. (1990) 9:589-602
Three human homologs of a murine gene encoding an inhibitor
                                                                                                                                                                                                     Nakao, M.; Nomiyama, H.; Shimada, K. Mol. Cell. Biol. (1990) 10:3646-3658 Structures of human genes coding for
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#disulfide_bonds #status predicted
#length 92 #molecular-weight 10085 #ci
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Pred. No. 3.04e-04;
3; Mismatches 1
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Best Local Similarity 66.7%;
Matches 8; Conservative
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#map_position 17q11-17q21
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#accession B30412
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This protein is
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This protein is a member of a "small inducible" or "activation specific" gene family, is likely to be an early-acting interleukin, and is the product of a putative GO/G1 switch gene.
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Local Similarity 66.7%;
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1 EICADPSQKWVQ 12
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                                     EVCLDPKEKWVQ 86
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Cloning of a canine gene homologous
interleukin-8-encoding gene.
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Two inflammatory mediator cytokine genes are closely linked
                                                                                                                                                 22/1: 67/2
#superfamily beta-thromboglobulin
#length 95 #molecular-weight 10611 #checksum
                                                                                                                                                                                                                            protein is a polymorphonuclear leukocyles chemotactic is involved in the host defense function.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            interleukin-8 - dog
#formal_name Canis lupus familiaris #common_name dog
19_May-1994 #sequence_revision 19-May-1994 #text_change
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interleukin-8 - dog
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#product LD78-beta protein #status predicted #label MAT
}th 93 #molecular-weight 10161 #checksum 7784
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                                                                       Score 76; DB 2;
Pred. No. 4.91e-04
2; Mismatches
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#title
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#title Constitutive and allergen-induced
in the guinea pig lung.
#cross-references MUID:95173589
#accession 148099
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#residues 1-96 ##label JOS
#residues 1-96 ##label JOS
##cross-references EMBL:X77603; NID:9602551; PID:9602552
#This protein is identified as a potent eosinophil chemoattractant.
IFICATION #superfamily macrophage inflammatory protein
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Biochem. Biophys. Res. Commun. (1994) 205:788-794
Eotaxin: Cloning of an eosinophil chemoattractant cytokine and increased mRNA expression in allergen-challenged
S42496 † interleukin
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#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
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21-Feb-1995 #sequence_revision
08-Sep-1997
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#journal Immunol. Cell Biol. (1994) 72:398-405
#title Cloning, sequencing, expression and inflammatory activity
#cross-references_MUID:95137691
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FICATION #superfamily beta-thromboglobulin
#length 101 #molecular-weight 11292 #checksum
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                                                                                              A53096 #type complete
interleukin-8 precursor - p19
#formal_name Sus scrofa domestica #common_name domestic
02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change
08-Sep-1997
Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch, M.J.; Weiss, D.J.; Murtaugh, M.P.
J. Biol. Chem. (1994) 269:77-85
Regulation of interleukin-8 expression in porcine alveolar macrophages by bacterial lipopolysaccharide.
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#superfamily beta-thromboglobulin
#length 101 #molecular-weight 11:
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#common_name domestic sheep
06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
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#formal_name Ovis sp. #common_name sheep
21-Feb-1997 #sequence_revision 21-Feb-1997
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Cordier, G.
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##residues 1-148 ##label TIM
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##residues 1-103 ##label GOO
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 T.; Takeya, M.; Takahashi,
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##cross-references GB:M86923; NID:g164520; PID:g164521
IFICATION #superfamily beta-thromboglobulin
RY #length 103 #molecular-weight 11633 #chec
##cross-references EMBL:X17053; NID:g55530; PID:g55531
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                                                                                                                                                                                                                                                                                                                                immediate-early serum-responsive protein JE - rat
monocyte chemoattractant protein-1
#formal_name Rattus norvegicus #common_name Norway rat
29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change
08-sep-1997
                                                                                                                                                              Timmers, H.T.M.; Pronk, G.J.; Bos, J.L.; van der Eb, A.:
Nucleic Acids Res. (1990) 18:23-34
Analysis of the rat JE gene promoter identifies an AP-1
binding site essential for basal expression but not fo
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Biochemistry (1992) 31:10483-10490
Molecular cloning of porcine alveolar macrophage-derived
neutrophil chemotactic factors I and II; identification of
porcine IL-8 and another intercrine-alpha protein.
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#length 103 #molecular-weight 11677
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#formal_name Sus scrofa domestica #common_name domestic pig
30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change
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Pred. No. 4.91e-04
2; Mismatches
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Pred. No. 4.91e-04;
2; Mismatches 2
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                                                                                                                                   ORGANISM
                                                                                                                                                     ALTERNATE_NAMES
                                                                                                                                                                           TITLE
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Best Local Similarity 66.7%;
Matches 8; Conservative
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Best Local
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#cross-references MUID:95298037
#accession 152322
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#journal
                                      #authors
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##cross references EMBL:U22414; NID:g790632; PID:g790633
##cross references EMBL:U22414; NID:g790632; PID:g790633
#superfamily macrophage inflammatory protein
#superfamily macrophage inflammatory protein
#superfamily macrophage inflammatory protein
#superfamily macrophage inflammatory protein
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##cross-references GB:M57441; NID:g205333; PID:g205334
##experimental_source spleen cells
the authors translated the codon GAA for
##note Lys and GCT for residue 63 as Leu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ##molecule_type mRNA
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Similarity 75.0%;
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monocyte chemoattractant cytokine RANTES precursor -
MuRantes
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Molecular cloning of rat monocyte chemoattractant protein-1
(MCP-1) and its expression in rat spleen cells and tumor
                                                                                          #formal_name Mus musculus #common_name house mouse 18-Jun-1993 #sequence_revision 16-Aug-1996 #text_cl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Shi, M.M.; Godleski, J.J.; Paulauskis, J.D.
Biochem. Biophys. Res. Commun. (1995) 211:289-295
Molecular cloning and posttranscriptional regulation of macrophage inflammatory protein-1 alpha in alveolar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        macrophage inflammatory protein-lalpha - rat
#formal_name Rattus norvegicus #common_name Norway rat
29-May-1998 #sequence_revision 29-May-1998 #text_change
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                                  Danoff, T.M.; Lalley, P.A.; Chang,
                                                                        I48875; A46539; I48654; I56970
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                Neilson, E.G
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#product immediate-early serum-responsive protein JE
#status predicted #label MAT
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Pred. No. 7.91e-04;
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Pred. No. 4.91e-04;
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                                  Y.S.;
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DATE ORGANISM TITLE

14-Feb-1997 #sequence\_revision 14-Feb-1997 #text\_change

09-May-1997

immune activation gene 2 - rabbit
#formal\_name Oryctolagus cuniculus #common\_name

#type complete

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KEYWORDS
FEATURE
1-23
24-91
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#journal
#title
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#journal Kidney Int. (1992) 41:220-225
#title Isolation and characterization of cDNA from renal tubular
#title epithelium encoding murine Rantes: A small intercrine fr
the Scy superfamily.
#cross-references MID:92277990
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#journal Mol. Cell. Blol. (1994) 14:2914-2925
#title Definition of a lipopolysaccharide-responsive & 5'-flanking regions of MuRantes and crg-2.
#cross-references_MUID:94217689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        #title Cloning, genomic organization, and chromosomal localization of the Scya5 gene encoding the murine chemokine RANTES.
#cross-references MID:94132613
#accession I48875
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#accession A46539
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##residues 1-91 ##label SHI
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##cross-references EMBL:U02298;
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Local Similarity 58.3%;
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#product monocyte chemoattractant cytokine RANTES
#status predicted #label MAT
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Pred. No. 1.27e-03;
3; Mismatches 2
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Best Local Similarity 58.3%;
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#accession I46730
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##cross-references GB:Y10802; NID:g1924937; PID:e294088; PID:g1924938
##cross-references GB:Y10802; NID:g1924937; PID:e294088; PID:g1924938
##experimental_source bone marrow
This protein belongs to the beta-chemokine family which is one of
the major HIV-suppressive factors. It plays roles in autoimmune
processes such as multiple sclerosis and rheumatoid arthritis and
in tumor biology, and contribute to the trafficking and
recuitment of the responsive cells.
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IFICATION #superfamily macrophage inflammatory protei
W #length 92 #molecular-weight 10066 #check
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                                                    I46871 #type complete
interleukin-8 - rabbit
neutrophil attractant/activation protein-1
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#superfamily macrophage inflammatory protein
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#journal J. Immunol. (1991) 146:3483-3488

#title Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and expression in spleen ceils.

#cross-references MUID:91225489

#accession 146871
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                                                                                                      ##molecule_type DNA; mRNA
##residues 1-148 ##label
##cross-references GB:J04467;
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##residues 1-148 ##label ROL
##cross-references GB:M19681; NID:g193486; PID:g387168; GB:M19682
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146871; S13052
146857
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A44771
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J. Biol. Chem. (1989) 264:679-682
Platelet-derived growth factor-inducible gene JE is a member of a family of small inducible genes related to platelet
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A novel neutrophil chemoattractant generated during an
#superfamily macrophage
cytokine; glycoprotein
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PDGF-inducible JE glycoprotein precursor - mouse
#formal_name Mus musculus #common_name house mouse
01-Dec-1989 #sequence_revision 01-Dec-1989 #text_change
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Best Local
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#title
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                   24-91
                                                                                                                                                                                                                                                                        #cross-references MUID:88285659
#accession A28815
                                                                                                                                                                                                                                                                                                                                                                             #authors
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                                                                                                                                pne GDB:SCYA5; D17$136E
##cross-references GDB:120749; OMIM:187011
                                                                                                                                                                                ##Cross-references GB:M21121
The acronym RANTES reflects the description "Regulated Activation, Normal T Expressed, Secreted".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ##molecule_type mRNA
##residues 1-120 ##label YOU
##length 120 #molecula
                                                                                                                                                                                                                                                       ##molecule_type mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  74 EVCTNPNDDWVQ 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               73 EVCADPKKEWVQ 84
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 h 76.6%;
Similarity 66.7%;
                                                                                                                                                                                                                                                                                                                      Schall, T.J.; Jongstra, J.; Dyer, B.J.; Jorgensen, Clayberger, C.; Davis, M.M.; Krensky, A.M. J. Immunol. (1988) 141:1018-1025
A human T cell-specific molecule is a member of a
                                                                                                                                                                                                                                                                                                                                                                                                                                         monocyte chemoattractant cytokine RANTES precursor - human small inducible cytokine A5; T-cell specific cytokine RANTES #formal_name Homo sapiens #common_name man 30-Jun-1989 #sequence_revision 16-Aug-1996 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Youn, B.S.; Zhang, S.; Broxmeryer, H.E.; Antol, K.; Frases Jr., M.J.; Hangoc, G.; Kwon, B.S.
Biochem. Biophys. Res. Commun. (1998) 247:217-222
Isolation and characterization of LMC, a novel lymphocyte monocyte chemoattractant human CC chemokine, with
                                                                                  #superfamily macrophage inflammatory
chemotaxis; cytokine; immediate-early
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     myelosuppressive activity. JE0177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      lymphocyte and monocyte chemoattractant CC chemokine - human #formal_name Homo sapiens #common_name man 10-Jul-1998 #sequence_revision 10-Jul-1998 #text_change
                                                                                                                      17q11.2-17q12
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larity 50.0%;
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#domain signal sequence #status predicted #label
#product T-cell protein RANTES #status predicted
MAT
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h 148 #molecular-weight 16326
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Pred. No.
1; Misma
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Pred. No. 8.28e-03;
5; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 No. 3.26e-03; Mismatches 3
                                                                   immediate-early protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 120;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    #checksum
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                                                                                 protein;
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                                                                                    inflammation;
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| #label
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   #title Sequence of the murine haemopoietic stem cell tross-references MUID:91016858
#accession S11685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
  #authors
#journal
                                                                                                                                                                                                                                                                                                                                                                                  #journal J. Exp. Med. (1988) 167:1939-1944
#title Cloning and characterization of a cDNA for murine macrophage
inflammatory protein (MIP), a novel monokine with
inflammatory and chemokinetic properties.
#cross-references MUID:88258380
#accession S04533
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Kwon, B.S.; Weissman, S.M.

#Journal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967

#title cDNA sequence of two inducible T-cell genes.

#cross-references MUID:89184547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  #accession
                                                                                                                        #accession
                                                                                                                                       #contents
                                                                                                                                                              #journal
                                                                                                                                                                                                                          #authors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                #authors
                                                      ##molecule_type mRNA.

##residues 1-92 ##label KWO

##cross-references GB:J04491; NID:g201524; PID:g201525
                                                                                                                                                                                                                                                               ##note
                                                                                                                                                                                                                                                                                                                                        ##cross-references EMBL:X53372; NID:g54062; PID:g297531
##note the authors' translation of the nucleotide sequence
differs at several positions from the sequence gi-
                                                                                                                                                                                                                                                                                                       ##note
                                                                                                                                                                                                                                                                                                                          ##cross-references EMBL:X12531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ##residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ##molecule_type DNA
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Davatelis,
                                                                                                                      erratum
A53885
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macrophage inflammatory protein-1-alpha precursor - mouse
heparin-binding chemotaxis protein; L2G25B protein;
SCI_MIP-la; SIS alpha; stem cell inhibitor/macrophage
Brown, K.D.; Zurawski, S.M.; Mosmann, J. Immunol. (1989) 142:679-687
                                       A30552
                                                                                                                                                              J. Exp. Med. (1989) 170:2189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Herms Luedke, C.; Gallegos, C.; Coit, D.; Merryweather,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S04533
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #formal_name Mus musculus #common_name house mouse
17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change
08-Sep-1997
$11685; A32393; 'S04533; A53885; A30552; PS0303; A27596;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         #length 91 #molecular-weight 9990 #checksum
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                                                                                                                                                                              Luedke, C.; Gallegos, C.;
Cerami, A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cerami,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             inflammatory protein 1-alpha; T-cell activation protein
                                                                                                                                                                                                                                                           the authors translated the codon GAG
Asp and ATT for residue 91 as Asn
the sequence has been corrected in re
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1-92 ##label GRO
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                                                                                                                                                                                                 G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermse
C.; Gallegos, C.; Coit, D.; Merryweather,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 68; DB 1; Len
Pred. No. 2.08e-02;
Mismatches 2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 91;
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                                                                                                                                                                                                                                                               in reference A53885
                    Ŧ.R.;
                                                                                                                                                                                                                                                                                                     for residue 49
                        Zurawski,
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ather, J.;
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COMMENT
GENETICS
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REFERENCE
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                                                                                                                                                                                                                                                                                              FEATURE
                                                                                           Query Match 72.3%;
Best Local Similarity 58.3%;
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           *Journal J. Immunol. (1991) 146:4031-4040

#title Genomic structure of murine macrophage inflammatory protein-1-alpha and conservation of potential regulatory sequences with a human homolog, LD78.

#cross-references MUID:91237116

#accession 156104
                                                                                                                                                                                                                                              1-23
24-92
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#cross-references MUID:89093958

#accession A30552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ##residues 24-33,'XX',36-54 ##label SHE
#authors Wolpe, S.D.; Davatelis, G.; Sherry, B.; Beutler, B.; Hesse,
D.G.; Nguyen, H.T.; Moldawer, L.L.; Nathan, C.F.; Lowry,
S.F.; Cerami, A.
#journal J. Exp. Med. (1988) 167:570-581
#title Macrophages secrete a novel heparin-binding protein with
#title inflammatory and neutrophil chemokinetic properties.
#cross-references MUID:88154745
                                                                                                                                                                                                                                                                                                                                                                     #introns
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##molecule_type mRNA
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#title Resolution of the two components of macrophage inflammatory protein 1, and cloning and characterization of one of those components, macrophage inflammatory protein 1 beta.
#cross-references MUID:89067830
#accession PS0303
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                                                                                                                                                                                                                                                                                                                                                                                                           ##molecule_type protein
##residues 24-33,'XX',36-42 ##label WOL
##note 26-Met, 30-pro, and 39-Thr were also found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ##molecule_type mRNA

#residues 1-21,'L',23-61,'A',63-92 ##label BRO

##cross-references GB:M23447; NID:g533240; PID:g533241
                                                71 QICADSKETWVQ 82
1 EICADPSQKWVQ 12
                                                                                                                                                                                                                                                                                                                23/3; 26/1; 63/2 #superfamily macrophage inflammatory protein heparin binding
                                                                                                                                                                                      #domain signal sequence #status predicted #label SIG\
#product macrophage inflammatory protein #status
experimental #label MAT
#length 92 #molecular-weight 10345 #checksum 5009
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Davatelis, G.; Wolpe, S.D.; Masiarz, F.; Coit, D.; Cerami,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        156104
                                                                                                                  Score 68; DB 2; 1
Pred. No. 2.08e-02;
                                                                                             Mismatches
                                                                                                                                      Length 92;
                                                                                             2; Indels
                                                                                           0;
                                                                                           Gaps
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Search completed: Thu Apr Job time : 18 secs.

1 07:38:03 1999

1 92 97.9 99 1 MCP3_HUMAN MONOCYTE CHEMOTACTIC P 2.52e-08 94.7 99 1 MCP1_HUMAN MONOCYTE CHEMOTACTIC P 4.46e-08 4 89 94.7 101 1 MCP1_CANFA MONOCYTE CHEMOTACTIC P 4.46e-08 6 86 91.5 99 1 MCP1_PIG MONOCYTE CHEMOTACTIC P 4.46e-07 86 91.5 99 1 MCP2_BOVIN MONOCYTE CHEMOTACTIC P 2.44e-07 86 91.5 99 1 MCP2_BOVIN MONOCYTE CHEMOTACTIC P 2.44e-07 91 81.9 91 MCP2_BOVIN MONOCYTE CHEMOTACTIC P 2.44e-07 91 MCP4_HUMAN MONOCYTE CHEMOTACTIC P 1.31e-06 91 MCP4_HUMAN MONOCYTE CHEMOTACTIC P 2.44e-05 91 MCP4_HUMAN MONOCYTE CHEMOTACTIC P 2.44e-07 91 MCP4_HUMAN MONOCYTE CHEMOTACTIC P 2.44e-07 91 MCP4_HUMAN MONOCYTE CHEMOTACTIC P 2.44e-07 91 MCP4_HUMAN MONOCYTE CHEMOTACTIC P 2.44e-05 91 MCP4_HUMAN MONOCYTE CHEMOTACTIC P 2.04e-05 91 MCP4_HUMAN MONOCYTE CHEMOTACTIC P 2.04e-05 91 MCP4_MUMAN MONOCYTE CHEMOTACTIC P 2.04e-05 91 MCP4_MUMAN MONOCYTE CHEMOTACTIC P 2.04e-05 91 MCP4_MUMAN MONOCYTE CHEMOTACTIC P 2.04e-05 91 MCP4_MCP4_MUMAN MONOCYTE CHEMOTACTIC P 2.04e-05 91 MCP4_MUMAN MONOCYTE CHEMOTACTIC P 2.	Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.  SUMMARIES  Result  Query  No. Score Match Length DB ID  Description  Pred. No.	Description: (1-12) from US08927939.pep Perfect Score: 94 Sequence: 1 EICADPSQKWVQ 12 Scoring table: PAM 150 Gap 15 Pearched: 74019 seqs, 26840295 residues Post-processing: Minimum Match 0% Listing first 100 summaries Database: swiss-prot36 Swiss-prot36 Swiss-prot36	**************************************
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TRANSLATIO ORNITHINE GENOME POL TRAS PROTE SPINDLE PO WYELOID UP HYPOTHETIC TRANSLATIO PUTATIVE PO HYPOTHETIC CAPSID ASS M POLYPROT HYPOTHETIC GUYCOGEN P ENVELOPE P ENVELOPE P			CHEMOKINE CHEMOKINE CHEMOKINE CHEMOKINE CHEMOKINE MONOCYTE T-CELL SPE MACROPHAGE T-CELL SPE MONOCYTE CINTERLEUKI INTERLEUKI INTERLEUKI INTERLEUKI T-CELL SPE MACROPHAGE T-CELL SPE

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97.9 94.7.7 94.7.7 91.5.6.7 91.5.7 91	% Query Match
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MONOCYTE CHEMOTACTIC P MONOCYTE CHEMOTACTIC P MACROPHAGE INFLAMMATOR TOTAXIN PRECURSOR (EOS MACROPHAGE INFLAMMATOR TONSILLAR LYMPHOCYTE L EOTAXIN PRECURSOR (EOS INTERLEUKIN-8 PRECURSO INTERLEUKIN-8 PRECURSO INTERLEUKIN-8 PRECURSO INTERLEUKIN-8 PRECURSO INTERLEUKIN-8 PRECURSO	Description
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SISD_HUMAN SISD_CAVPO MIIA_MOUSE LIN_MOUSE SDF1_HUMAN II.8_CHUMAN II.8_CHUMAN II.8_CHUMAN II.8_CHUMAN CIO_MOUSE SIST_HUMAN CIO_MOUSE MIIA_HUMAN CIO_MOUSE MIIA_HUMAN CIO_MOUSE MIIA_HUMAN CIO_MOUSE MIIA_HUMAN BAAL_MALD BAAL_MALD BAAL_MALD LIN_EAST INV2_YEAST INV2_MOUSE FARC_HUMAN E2BE_HUMAN E2BE_HUMAN E2BE_RAT BOAL_DIACA BGAL_DIACA BGAL_CACEGE INV_HVINS COMPANIONE COMPANION	MIIA_RAT CCC1_HUMAN CCC3_HUMAN CCC3_BOVIN SISD_MOUSE MIIB_RABIT SISD_AFT MCP3_MOUSE MCP2_HUMAN IIB_RABIT MCP1_MOUSE MCP1_MOUSE MIIB_CRICK SISD_PIG
T-CELL SPECIFIC RANTES T-CELL SPECIFIC RANTES ACCROPHACE INFLAMMATOR LYMPHOTACTIN PRECURSOR STROMAL CELL-DERIVED F MACROPHACE INFLAMMATOR STROMAL CELL-DERIVED F INTERLEUKIN-8 PRECURSOR LYMPHOTACTIN PRECURSOR MACROPHAGE INFLAMMATOR MACROPHAGE INFLAMMATOR BETA-GALACTOSIDASE PRE LYMPHOTACTIVA TON LYMPHOTACTIVATION LYMP	MACROPHAGE INFLAMMATOR CHEMOKINE CC-1 PRECURS CHEMOKINE CC-3 PRECURS MONOCYTE CHEMOTACTIC PT-CELL SPECIFIC RANTES MACROPHAGE INFLAMMATOR F-CELL SPECIFIC PRECURSO INFERLEUKIN-8 PRECURSO INFERLEUKIN-8 PRECURSO INFERLEUKIN-8 PRECURSO MONOCYTE CHEMOTACTIC PMONOCYTE CHEMOTACTIC PMONOCYTE CHEMOTACTIC PMACROPHAGE INFLAMMATOR MACROPHAGE INFLAMMATOR T-CELL SPECIFIC RANTES
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DESCRIPTION OF COLORS OF C
                           -I- PTM: O-GLYCOSYLATED.
-I- SIMILARITY: BELONGS TO THE INTERCRINE BE:
C-C) (CHEMOKINE CC).
EMBL; X72308; G313708; ALT_INIT.
EMBL; X72309; -; NOT_ANNOTATED_CDS.
EMBL; X7309; -; NOT_ANNOTATED_CDS.
EMBL; X71087; G288398; ALT_INIT.
EMBL; X71087; G288398; ALT_INIT.
EMBL; X71087; G288397; ALT_INIT.
EMBL; X71087; G268397; ALT_INIT.
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MEUNIER S., BERNASSAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON H.;
BIOCHEMISTRY 36:4412-4422(1997).

-i- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN
CAN BIND HEPARIN.

-i- SUBUNIT: MONOMER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.

MEDLINE; 93305913.

MINTY A., CHALON P., GUILLEMOT J.C.,

MAGAZIN M., MILOUX B., MINTY C., RAMC

SHIRE D., FERRARA P., CAPUT D.;

EUR. CYTOKINE NETW. 4:99-110(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-DEC-1992 (REL. 24, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE CHEMOTACTIC PROTEIN 3) (NC28).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRUCTURE BY NMR, AND SUBUNIT MEDLINE; 97053697.
KIM K.-S., RAJARATHNAM K., CL. FEBS LETT. 395:277-282(1996).
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LAUREYS G., VAN DAMME J.;
GENOMICS 21:403-408(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OPDENAKKER G., FROYEN (BIOCHEM. BIOPHYS. RES.
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA;
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      P80098;
01-DEC-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE OF 30-99.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRUCTURE
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PS00472;
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SMALL_CYTOKINES_CC; 1.
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PC1_HUMAN
PTPJ_MOUSE
SUIS_HUMAN
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PLASMA-CELL MEMBRANE G
PROTEIN-TYROSINE PHOSP
SUCRASE-ISOMALTASE, IN
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VITA N., LUPKER J.,
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MEDLINE; 93367104.
YOSHIMURA T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      - I- FUNCTION: CHEMOTACTIC FACTOR THAT NEUTROPHILS.
-!- SUBUNIT: MONOMER OF "-
-!- SIMILAPT""
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CYTOKINE; CHE
INFLAMMATORY
SIGNAL
CHAIN
MOD_RES
DISULFID
DISULFID
DISULFID
CARBOHYD
MCP1_HUMAN STANDARD; PRT; 99 AA.
p13500;
p13500;
01-JAN-1990 (REL. 13, CREATED)
01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)
                                                                                                                                                                                                                                                                                                                                       DISULFID
DISULFID
CARBOHYD
SEQUENCE
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Q08782;
Q1-NOV-1995 (REL. 32, CREATED)
Q1-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1)
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CONFLICT
SEQUENCE
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CAVIA PORCELLUS (GUINEA PIG).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHEMOATTRACTANT PROTEIN-1).
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1 EICADPSQKWVQ
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C-C) (CHEMOKINE CC).
L; L04985; G349821; -.
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EICADPSQKWVQ 12
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11; Conser
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10; Conse
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34 59
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91.7%;
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                                                                                                                                                                                                                                                                                                                                           MW.
                                                                                                                                                                                                                                                                                                                                                                         AL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
BY SIMILARITY.
MONCEYTE CHEMOTACTIC PROTEIN 1.
PYRROLIDONE CARBOXYLIC ACID (BY
SIMILARITY).
BY SIMILARITY.
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Pred.
1; N
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Pred.
2; M
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PYRROLIDONE CARBOXYLIC
BY SIMILARITY.
BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                       POTENTIAL.
22FAD257
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                                                                                                                                                                                                                                                                 re 90; DB 1; L
1. No. 2.52e-08;
Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
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No.
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7.99e-09;
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(SMALL CYTOKINE
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MEDLINE; 9005,...
ROLLINS B.J., STIE
CELL. BIOL. 9
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                                                                                                                       3D-STRUCTURE MODELLING.
MEDLINE; 91312872.
GRONENBORN A.M., CLORE G.M.;
PROTEIN ENG. 4:263-269(1991).
                                                                                                                                                                                                                                                                                ADV.
                                                                                  MEDLINE; 97143315
LUBKOWSKI J., BUJ
                                                                                                                                                                                                                   ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA SHABANOWITZ J., HUNT D.F., APPELLA E.; PROC. NATL. ACAD. SCI. U.S.A. 86:1850-1854(1989).
                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. MEDLINE; 92095166.
                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. MEDLINE; 91207938.
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MEDLINE; 89165862.
FURUTANI Y., NOMURA H.,
LARSEN C.G., OPPENHEIM
EFFECT OF DELETION OF MEDLINE; 96195223.
                           MEDLINE; 96234959
HANDEL T.M., DOMA
BIOCHEMISTRY 35:6
                                                        STRUCTURE BY NMR
                                                                                                                                                                        BIOCHEM. BIOPHYS.
                                                                                                                                                                               SEQUENCE OF 29-53 AND MEDLINE; 90211336.
DECOCK B., CONINGS R.,
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MEDLINE; 89184525
                                                                                                                                                                                                                                                                                        YOSHIMURA T., LEONARD
                                                                                                                                                                                                                                                                                                                       MOL. CELL. BIOCHEM.
                                                                                                                                                                                                                                                                                                                                        KOLATTUKUDY P.E.;
                                                                                                                                                                                                                                                                                                                                                        MEDLINE;
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                                                                                                                                                                                                                                                                                                                                                                                                 CHANG H.C.,
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LEONARD E.J.
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EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SCYA2 OR MCP1
HOMO SAPIENS
                                                                                                     K-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
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                                                                           STRUCT.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   244:487-493(1989)
                                                                                                                                                                                                                                                                                                                                                                                      HSU F., FREEMAN G.J.,
L. 1:388-399(1989).
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                          DOMAILLE P.J.;
35:6569-6584(1996).
                                                                         BIOL. 4:64-69(1997).
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DL. 9:4687-4695(1989)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N., MOORE S.K.,
                                                                                                                                                                                                                                                                              ) E.J.;
305:47-56(1991).
         N-TERMINAL RESIDUES
                                                                                                                                                                                                    82-92
                                                                                                                                                                      LENAERTS J.-P., BILIAU A., VAN DAMME COMMUN. 167:904-909(1990).
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COMMUN. 159:249-255(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NOTAKE M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERTEBRATA;
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169:346-351(1990).
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                                                                                  HANDEL T.M., WLODAWER A.;
                                                                                                                                                                                                                                                                                                                                                                                               J.D.,
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VARIANT
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J. EXP. MI
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MUTAGEN
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                                           SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KIM K.-S., RAJARATHNAM K., C
FEBS LETT. 395:277-282(1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBUNIT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE; 94253189.
ZHANG Y.J., RUTLED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MUTAGENESIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE; 97053697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BIOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATHEROSCIE-TO THE NUMBER; IN EQUILIBRIUM.

SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.

PTM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET CELL SELECTIVITY. DELETION OF THE AMINO- TERMINAL RESIDUE CONVERTS IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOATTRACTANTISIALLARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. HAS BEEN IMPLICATED IN THOGENESIS OF DISEASES CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOI ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FUNCTION:
                                                                                                                                                                                                                                                                                                                                                                              M31626; G386961;
M31625; G386961;
M31625; G386961;
M24545; G307163;
M28226; G338009;
M27719; G487124;
M27719; G487124;
M28225; G338007;
M28225; G338007;
M28223; G338007;
M28223; G338007;
M28223; G338007;
M28223; G38007;
  Similarity
11; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     J., RUTLEDGE B.J., ROLLINS B. CHEM. 269:15918-15924(1994).
                                                                                                                                                                                                                                                                    PS00472;
                                                                                                                                                                                                                                                           CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           UGUCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.;
ED. 183:681-685(1996).
                                                                                                                                                                                                                                                                                                                                      12-MAR-97.
                                                                                                                                                                                                                                                                                                                         12-MAR-97
94.7%;
larity 91.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                               A35474.
S03339.
                                                       AA;
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                                                                                                                                                                                                                                                     SMALL_CYTOKINES_CC; 1.
XIS; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
                                           11025
                                                                             JOINED.
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 Score
Pred.
0; M
                                                                                                                                 MISSING:
MISSING:
MISSING:
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                                                                                                                                                                                         POTENTIAL.
                                                                                                                                                                                                                       MONOCYTE CHEMOTACTIC PROTEIN 1. PYRROLIDONE CARBOXYLIC ACID.
re 89; DB 1; L
1. No. 4.46e-08;
Mismatches 1
                                                    SING: LOSS OF ACTIVITY.

SING: LOSS OF ACTIVITY.

SING: 90% REDUCTION IN ACTIVITY.

A: 90% REDUCTION IN ACTIVITY.

A: 90% REDUCTION IN ACTIVITY.

A: 50% REDUCTION IN ACTIVITY.

D: 105% OF ACTIVITY.

L: LOSS OF ACTIVITY.

L: LOSS OF ACTIVITY.

L: LOSS OF ACTIVITY.

L: LOSS OF ACTIVITY.
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                                          REDUCTION IN ACTIVITY. CRC32;
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                    Length 99;
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  Indels
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 Gaps
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P42831;
01-NOV-1995
01-NOV-1995
15-JUL-1998
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P52203;
01-OCT-1996
                                                                                            SUS SCROFA EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                                 DISULFID DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ROSSEN R.D., SMITH C.W., ENTMAN M.L.;

CIRCULATION 95:693-700(1997).

-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.

MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE REPERFUSED MYOCARDIUM.

-!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).

-!- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAR VEINS, AND INFLITRATING LEUKOCYTES.

-:- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE).
                                                                                                                    SCYA2.
                                                                                                                           01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-UUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
                                                                                                                                                                                                                                                                                                                                                                                                          SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KUMAR A.G., BALLANTYNE C.M., MICHAEL L.H., LINDSEY M.L., HAWKINS H.K., BIRDSALL H.H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE=JUGULAR VEIN ENDOTHELIAL; MEDLINE; 97176620.
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EUKARYOTA; METAZOA; CH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHEMOATTRACTANT PROTEIN-1).
SEQUENCE FROM N.A.
                     SEQUENCE FROM N.A.
MEDLINE; 94183284.
HOSANG K., KNOKE I., KI
                                                                                 EUTHERIA;
                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                     MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                 CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                          CYTOKINE;
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                                                                                                                                                                                                                                                               73 EICADPKOKWVO 84
                                                                                                                                                                                                                                          1 EICADPSQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                              -C) (CHEMOKINE CC).
U29653; G1144186; -.
TE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                 ARTIODACTYLA
                                                                                                                                                                                                                                                                                                                                                                                                                      CHEMOTAXIS; SIGNAL;
                                                                                            (PIG).
METAZOA;
                                                                                                                                                                                                                                                                                                                                      101
                                                                                                                                                                                                                                                                                        Conservative
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                                                                                                                                                                                          STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                  23
101
24
                                                                                                                                                                                                                                                                                                  94.7%;
91.7%;
                                                                                           CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                      11121 MW;
                                                                                                                                                                                                                                                                                                                                                 59
75
                     KLAUDINY J., WEMPE F., WUTTKE W., S. COMMUN. 199:962-968(1994).
                                                                                                                                                                                                                                                                                     Score 89; DB 1; 1
Pred. No. 4.46e-08;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                    BY SIMILARITY.
BY SIMILARITY.
A7075B14 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                 ; INFLAMMATORY RESPONSE.
BY SIMILARITY.
MONOCYTE CHEMOTACTIC PR
PYRROLIDONE CARBOXYLIC
                                                                                                                                                                                                                                                                                                                                                                         SIMILARITY).
                                                                                           VERTEBRATA;
                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           101
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                            TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MACKAY C.R., LAROSA G.J.,
                                                                                                                                                                                                                                                                                                            Length 101;
                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                     ACID
                                                                                            MAMMALIA;
                                 SCHEIT
                                                                                                                                                                                                                                                                                                                                                                             , 1.
(BY
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                                К.н.;
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                                                                                                             Query Match
Best Local S
Matches 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local :
                                                                                                                                                                                                                                 DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISULFID DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MCP2_PIG STANDARD; PRT; 99 AA.
p49873;
01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                         CYTOKINE;
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                     MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -!- SIMILARITY: BELONGS
C-C) (CHEMOKINE CC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -!- SUBUNIT: MONOMER OR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BIOCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MCCAN BIND HEPARIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HOSANG K.K., KNOKE I.I., KLAUDINY J.J., WEMPE F.F., SCHEIT K.K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. MEDLINE; 95091716.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SCYA8 OR MCP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHEMOATTRACTANT PROTEIN 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; Z48479; G683717;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -!- SUBUNIT: MONOMER OR
-!- SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBMITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE-BRAIN;
ZACH O.R.F.;
                                                                                                                                                                                                                                                                                                                                                                                    CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   73 EICAEPKQKWVQ
                                                      73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ი
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EICADPSQKWVQ
                                                   EVCADPQQKWVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EICADPSQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   248480; G683719; -. re; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     h 93.6%;
Similarity 83.3%;
10; Conservative
                                                                                                             10;
                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3479; GOODING: 19416; GR72313; -.
PS00472; SMALL_CYTOKINES_CC; 1.
PS00472; SMALL_CYTOKINES_CC; 1.
PS00472; SMALL_CYTOKINES_CC; 1.
PS00472; SMALL_CYTOKINES_CC; 1.
PS00472; SMALLANITY.
PS00472; CHEMOTACTIC_PS00472; CHEMOT
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                                                                                                                                                                                                                                                                                                                                                                                                                                           CHEMOTAXIS;
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35
7 AA;
                                                                                                                                                                                                                           34
35
9 AA;
                                                                                                             Conservative
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24
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12
                                                                                                                                            91.5%;
83.3%;
                                                                                                                                                                                                                                    10903
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24
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75
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24
                                                                                                                                                                                                                                                                                                                                                                                                                                        SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY) TO THE INTERCRINE BETA FAMILY (SMALL CYTO
                                                                                                                                                                                                                                       XV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 88; DB 1; I
Pred. No. 7.89e-08;
1; Mismatches 1
                                                                                                                                         Score 86; DB 1; I
Pred. No. 2.44e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                            HESARIN-BINDING; INFLAMMATOKE R
BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 2.

THOME CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                          PYRROLIDONE CARBOXYLIC SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MONOCYTE CHEMOTACTIC PROTEIN
                                                                                                                                                                                                                                       B7620BCF
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                                                                                                                Mismatches
                                                                                                                                                                                                                                       CRC32;
                                                                                                                                                                       Length 99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                           INFLAMMATORY RESPONSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MONOCYTES.
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                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WUTTKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 THIS PROTEIN
                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       W.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
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                                                                                                             Gaps
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Best Local s
Matches
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Q09141;
Q1-NOV-1995
Q1-NOV-1995
15-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-JUL-1998 (REL. 36, CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE CHEMOATTRACTANT PROTEIN 4) (CK-BETA10) (NCC-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
CHEMOATTRACTANT PROTEIN 2).
                                                                                                                                                                                                                                                                                                                                MEDLINE: 97113354.

GARCIA-ZEPEDA E.A., COMBADIERE C.,
LAVIGNE F., HAMID Q., MURPHY P.M.,
J. IMMUNOL. 157:5613-5626(1996).
                                                                                                                                      UGUCCIONI M., LOETSCHER P., FORE
LI Y., KREIDER B., GAROTTA G., T
J. EXP. MED. 183:2379-2384(1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHAIN
MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL;
TISSUE=FETAL;
MEDLINE; 97341179.
BERKHOUT T.A., SAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                  MEDLINE;
                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE-HEART;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HOMO SAPIENS (HUMAN)
EUKARYOTA; METAZOA; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SCYA13 OR MCP4 OR NCC1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q99616;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MCP4_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ---
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EUTHERIA; ARTIODACTYLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SCYA8 OR MCP2
                                                                                     SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             73 DVCADPKQKWVQ ::|||||
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SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PE F., HANES J., SCHEIT K.H.; CELL BIOL. 13:1-8(1994).
FUNCTION: CHEMOTACTIC FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAN BIND HEPARIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EICADPSQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               $67954; E118856; -. $67956; G544997; -.
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24
     SARAU H.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SMALL_CYTOKINES_CC; 1.
XIS; SIGNAL; HEPARIN-BINDING;
23 BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12
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10900
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75.0%;
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                                                                                     SEQUENCE
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     MOORES K.,
                                                                                                                                                                      FORSSMANN
G., THELEN
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Pred.
2; M
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BY SIMILARITY.
9BA2CD26 CRC32
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                                                                                                                                                                                                                                                                                                                                                          ROTHENBERG M.E.,
LUSTER A.D.;
                                                                                                                                                                                                                                                                                17-98
                                                                                     22-33
                                                                                                                                                                      χ.;
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     WHITE J.R.,
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                                                                                                                                                                      DEWALD B.,
BAGGIOLINI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TETRAPODA;
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     ELSHOURBAGY
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                                                                                                                                                                      M.;
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Best Local
                                                                                                                                              MCPA_BOVIN STANDARD; PRT; 99 AA. P28291; 01-DEC-1992 (REL. 24, CREATED) 01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE) 01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE) MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MC SEMINAL FLUID PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPELBAUM E., REAPE T.J., DANSIER D., MATTHEWS SCHMIDT D.B., IMBURGIA C., MACNULTY D., MACPHEWS O'SHANNESSY D., SCOTT M., GROOT P.H.E., MACPHEE T BIOL. CHEM. 272:16404-16413(1997).
                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
SEQUENCE
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SUBMITTED (AUG-1997)
-1- FUNCTION: CHEMOT
TISSUE-SEMINAL PLA
MEDLINE; 92181448
WEMPE F., EINSPAN
                                                                         SEQUENCE FROM N.A.
TISSUE=SEMINAL PLA
MEDLINE; 92096117.
                                                                                                                               BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA;
                                                      DNA CELL
                                                                  WEMPE
                                                                                                                     EUTHERIA; ARTIODACTYLA
                                                                                                                                                                                                                                                                                                                                                                                            MOD_RES
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                                SEQUENCE FROM N.A.
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MITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INTO THE ARTERIAL
MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
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                                                      BIOL.
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 EINSPANIER R.,
                                                    HENSCHEN A., SCHEIT K.H.; BIOL. 10:671-679(1991).
                                                                                                                                                                                                                                                                                                       Conservative
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                      PLASMA;
                                                                                    PLASMA;
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 SCHEIT K.H.;
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                                                                                                                                                                                                                                                                                                      Score
Pred.
1; M
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                                                                                                                                                                                                                                                                                                                                                                                                                           GLYCOPROTEIN; INFLAMMATORY RESPONSE.
                                                                                                                               VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                  DF52F6EC CRC32;
                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                  85; DB 1;
No. 4.29e-07
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TISSUES CHRONICALI
                                                                                                                               TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                             (MCP-1A)
                                                                                                                                                                                                                                                                                                                            Length
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RANGE-22-98.
RANGE-24-98.
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Best Local S
Matches 1
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Best Local
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DISULFID
CARBOHYD
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DISULFID
SEQUENCE
                                                                         CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                   EMBL;
HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                      WEDLINE; 91225489.
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01-DEC-1992 (REL. 24,
15-JUL-1998 (REL. 36,
MONOCYTE CHEMOTACTIC P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MCP1_RABIT P28292;
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CYTOKINE;
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EMBL; L32659; G624394; -.
EMBL; M84602; G163395; -.
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MEDLINE; 9438337.

WEMPE F., KUHLMANN J.K., SCHEIT K.H.;

BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).

-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BIOCHEM.
                                                                                                                                                                                                                                                                                                                              NEUTROPHILS.
-!- SUBUNIT: MONOMER OR HOMODIMER: IN EQUILIBRIUM (BY SIMILARITY)
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTO)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORYCTOLAGUS CUNICULUS (RABBIT).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NEUTROPHILS: NELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                         SEQUENCE
                                                                                                                                                                                                                             SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                             YOSHIMURA T., YUHKI N.;
J. IMMUNOL. 146:3483-3488(1991)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIGNAL
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                                                                                                                                                                                     MOD_RES
                                                                                                                                                                                                                                               CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                             -!- FUNCTION: CHEMOTACTIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EUTHERIA; LAGOMORPHA
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JC2336; JC2336.
; P13500; 1MCA.
                                                                                                                                                                                                                                                                               M57440; G165470; -. P13500; 1MCA.
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10; Conser
 Similarity
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PS00472;
CHEMOTAXIS; Si
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; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE;
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PS00472; SMALL_CYTOKINES_CC;
CHEMOTAXIS; SIGNAL.
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AA;
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                                                         13776
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, LAST SEQUENCE UPDATE)
, LAST ANNOTATION UPDATE)
PROTEIN 1 PRECURSOR (MCP-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMUN. 183:232-237(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WW;
                                                         MW;
                                                                                                                                                                                                                                                                                                                                                                                           FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-SPLEEN;
Score 83;
Pred. No.
                                                                                                           SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BY SIMILARITY.
BY SIMILARITY.
C8F5821D CRC32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 84; DB 1; 1
Pred. No. 7.51e-07
1; Mismatches
                                                                       POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PYRROLIDONE CARBOXYLIC ACID (BY SIMILARITY).
                                                                                                                                                                                                      BY SIMILARITY.

MONOCYTE CHEMOTACTIC PROTEIN 1.
                                                                                                                                                                                       PYRROLIDONE CARBOXYLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                       FBAC9D27 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                           THAT ATTRACTS MONOCYTES,
DB 1; L
1.31e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A
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                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                       ACID
                                                                                                                                                                                                                                             GLYCOPROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MAMMALIA;
                                                                                                                                                                                                                                                                                                                                     (SMALL CYTOKINE
                                                                                                                                                                                       (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TON TUE
                                                                                                                                                                                                                                                                                                                                                                                           BUT NOT
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SULF

DOTA_RAT

DOTA_RAT

C p97545; 008780;

T 15-JUL-1998 (REL. 36, CREATED)

T 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)

DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)

DT 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)

PE EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δÃ
                             SEPPPAU
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                                                                                                           RESULT
                                                                                                                                                                                                     Query Match
Best Local :
                                                                                                                                                                                           Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE TISSUE=LUNG;
MEDILINE; 96004658.

"OTHENBERG M.E., LUSTER A.D., LE
                                                                                                                                                                                                                                       DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P48298;
01-FEB-1996
01-FEB-1996
15-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-FEB-1996 (REL. 33, CREATED)
01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PRO
                                                                                                                                                                                                                                                                                    SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IMMUNITY 4:1-14(1996).

-I- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTE DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GONZALO J.-A., JIA G.-Q., AGUIRRE JENKINS N.A., LIN G.-S., KATZ H., GUTIERREZ-RAMOS J.-C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=C57BL/6J; 1
MEDLINE; 96158746.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EUKARYOTA;
EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SCYA11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EOTA_MOUSE
                                                                                                                                                                                                                                                                          CHAIN
                                                                                                                                                                                                                                                                                                                                              EMBL;
                                                                                                                                                                                                                                                                                                                                                                              -!- PTM: O-GLYCOSYLATED (PF
                                                                                                                                                                                                                                                                                                                                                                                                    CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
-!- INDUCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                 INFLAMMATORY
                                                                                                                                                                                                    Local
                                                                                                                                                           71 EICADPKKKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                74
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                                                                                                                                                                                                                                                                                                                                                                                                           LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
SUBCELLULAR LOCATION: EXTRACELLULAR.
TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVECLAR EPITHELIAL
CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
                                                                                                                                                                                                                                                                                                                               C-C) (CHEMOKINE CC).
; U26426; G995911; -.
; U40672; G1113937; -.
MGI:103576; SCYA11.
                                                                                                                                            |||||| ||||
EICADPSQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ICADPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ICADPSQKWVQ
                                                                                                                                                                                         h 87.2%;
Similarity 83.3%;
10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10;
                                                                                                                                                                                                                                                                                                         PS00472; SMALL_CYTOKINES_CC; 1. IL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RODENTIA
                                                                                                                                                                                                                                    1
24
32
33
33
7 AA;
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1 29
24 97
32 57
33 73
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE-LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                84
                                                                                                                                                                   82
                                                                                                                                             12
                                                                                                                                                                                                                                        10893
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                                                                                                                                                                                                                                                                                                                                                                              THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                        Score 82;
Pred. No. ;
0; Mismat
                                                                                                                                                                                                                                      POTENTIAL.
EOTAXIN.
BY SIMILARITY.
BY SIMILARITY.
F85A96BC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
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92:8960-8964(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                         re 82; DB 1; Len
d. No. 2.28e-06;
Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                V., FRIEND D., COYLE A.J.,
LICHTMAN A., COPELAND N.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ₿
                                      PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROTEIN)
                                                                                                                                                                                                               Length 97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1;
                                                                                                                                                                                                                                                                                                           SIGNAL
                                                                                                                                                                                           Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               THIS PROTEIN
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RESULT TRESULT TO THE RESULT T
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Best Local S
Matches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MIP4_HUMAN.
P55774;
01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
11-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (ALTERNATIVE ASSOCIATED CC CHEMOKINE PARC) (ALTERNATIVE ASSOCIATED CC CHEMOKINE 1) (AMAC-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID DISULFID
                                                                                                                                                                                                   SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
TISSUE-AORTA, AND LUNG;
MEDLINE; 97376836.
HIESHIMA K., IMAI T., BABA M., SHOUDAI K., ISHIZUKA K.,
NAKAGAWA T., TSURUTA J., TAKEYA M., SAKAKI Y., TAKAYSUKI K.
MIURA R., OPDENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA
J., IMMUNOL. 159:1140-1149(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS:
-i- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS,
DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS,
FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMI-
-i- SUBCELLULAR LOCATION: EXTRACELLULAR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; Y08358; E274141; -
EMBL; U96637; G2098785; -
PROSITE; PS00472; SMALL_CYTOKINES_CC;
EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLY
MEDLINE; 97275308.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            PATENT NUMBER US5504003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EUTHERIA; PRIMATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE-LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WILLIAMS C.M., NEWTON FLANAGAN B.F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EUTHERIA;
                                                                                         SUBMITTED
                                                                                                                                                      SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFLAMMATORY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            71 EICADPKKKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1
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SIMILARITY: BELONGS TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         h 87.2%;
Similarity 83.3%;
10; Conservative
                                                                                         V., MUELLER C.,
ED (AUG-1997) TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (DEC-1996)
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                                                                                                                                                      N.A.
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                                                                                         POLITZ O., HAKIY EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (PROBABLE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WW.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   THE INTERCRINE BETA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EOTAXIN.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WILSON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         POTENTIAL.
L -> S (IN REF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05B4ED45 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         re 82; DB 1; Le
1. No. 2.28e-06;
Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S.A.,
                                                            IN.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COLEMAN J.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TETRAPODA;
                                                                                         ORFANOS
TA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (BY SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                   C.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A PROMINENT
                                                                                                                   GOERDT
                                                                                                                                                                                                                                      H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
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RESULT RE
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Best Local S
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EOTA_HUMAN STANDARD; PRT; 97 AA.
P51671; P50877; Q92490; Q92491;
01-0CT-1996 (REL. 34, CREATED)
01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WELLS T.N.C., PEITSCH M.C.;

J. LEUKOC. BIOL. 61:545-550(1997).

-i- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LYMPHOCYTES BUT NOT
MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN B CELL MIGRATION
INTO B CELL FOLLICLES IN LYMPH NODES.
-i- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN THE LUNG. A LOW
LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NODE
  GARCIA-ZEPEDA E.A.,
                                TISSUE=PLACENTA;
MEDLINE; 97312708.
                                                                                                                                                                             BARTELS J., CHRISTOPHERS
                                                                                                                                                                                                                                                                                                                                           KITAURA M., NAKAJIMA T., IMAI T., H
TIFFANY H.L., MURPHY P.M., YOSHIE O
J. BIOL. CHEM. 271:7725-7730(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
MEDLINE; 96189937.
PONATH P.D., QIN S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. MEDLINE; 96181758. GARCIA-ZEPEDA E.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EUKARYOTA; METAZOA; EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SCYALL.
HOMO SAPIENS (HUMAN).
HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SCYA11
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-I- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS)
                                                                                         SEQUENCE
                                                                                                                                                     BIOCHEM.
                                                                                                                                                                                                                                   MEDLINE;
                                                                                                                                                                                                                                                              TISSUE-FORESKIN;
                                                                                                                                                                                                                                                                                            SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE-SMALL INTESTINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       J. CLIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MACKAY C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SMITH H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LUSTER A.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                68 QICADPNKKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             _
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             :||||: ||||
EICADPSQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                         FROM
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                                                                                                                                               BIOPHYS.
                                                                                                                                                                                                                                96374440.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INVEST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SHI X., GONZALO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2:449-456(1996).
                                                                                                                                               SCHLUETER C., RICHTER S. E., SCHROEDER J.M.; OPHYS. RES. COMMUN. 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          89 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
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31
                                                                                   N.A.
                                                                                                                                                                                                                                                                                   N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97:604-612(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                79
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9849 MW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       86.2%;
75.0%;
     ROTHENBERG
                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ROTHENBERG
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54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RINGLER D.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFLAMMATORY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         J.A., NEWMAN W., GUTIERR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score
Pred.
2; M
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BY SIMILARITY.
BY SIMILARITY.
052AA3DC CRC32;
                                                                                                                                                                                                                                                                                         OF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERTEBRATA; TETRAPODA; MAMMALIA;
  М.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            M.E., OWNBEY T.R., LEDER
                                                                                                                                               225:1045-1051(1996)
                                                                                                                                                                                                                                                                                         60-65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NO.;
                                                                                                                                                                                                     Έ.
                                                                                                                                                                                                                                                                                                                                                                         0.;
                                                                                                                                                                                                                                                                                                                                                                                                       HARADA S., COMBADIERE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESPONSE;
  WEREMOWICZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 1; L
3.96e-06;
                                                                                                                                                                                                                                                                                            AND
                                                                                                                                                                                                        NOSO N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                         75-88,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GUTIERREZ-RAMOS J.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIGNAL
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  s.,
                                                                                                                                                                                                                                                                                            AND
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WANG J., KASSAM N.,
     SARAFI M.N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     89
                                                                                                                                                                                                                                                                                            VARIANTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROTEIN
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RESULT
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C -!- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROJECT:

C -!- FUNCTION: THE PRESENCE OF ALLERGENS, THIS PROJECT:

C -!- FUNCTION: THE PROMOTES THE ACCUMULATION OF BOSINOPHILS, A PROMINEN

C -!- SUBCELLULAR LOCATION: EXTRACELLULAR.

C -!- SUBCELLULAR LOCATION: EXTRACELLULAR.

C -!- INDUCTION: BY THE ALPHA, IL-1-ALPHA AND INTERFERON GAMMA.

C -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTC

C -C ( C-C ) (CHEMOKINE CC).

R EMBL; U46573; G1280141; -.

R EMBL; U46573; G1280147; -.

R EMBL; Z5668; E221070; -.

R EMBL; Z5668; E221070; -.

R EMBL; Z75669; E221255; -.

R EMBL; Z75669; E251258; -.

R EMBL; Z75699; E329504; -.

R EMBL; Z95099; E329504; -.

RR EMBL; Z95099; E329504; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENOMICS 4
                                                                                                                                                                                                                                                                                                                                                                                                Q62401;
01-NOV-1997
01-NOV-1997
15-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISULFID
DISULFID
VARIANT
  SARAFI M.N., GARCIA-ZEPEDA E.A., MACLE LUSTER A.D.;
J. EXP. MED. 185:99-109(1997).
-!- FUNCTION: CHEMOTACTIC FACTOR THAT
                                                                                                                                             SEQUENCE FROM N.A.

MEDLINE: 97079149.

JIA G.-Q., GONZALO J.A., LLOYD C.,

WERSHIL B.K., GUTIERREZ-RAMOS J.C.,

J., EXP. MED. 184:1939-1951(1996).
                                                                                                                                                                                                                                                                                       SCYA12 OR MCP5.
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VARIANT
VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; 292709
MIM; 601156;
                                                                                     SEQUENCE FROM N.A. MEDLINE; 97149438.
                                                                                                                                                                                                                                                                                                                                                            CHEMOKINE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE; PS00472; SMALL_CYTOKINES_CC; EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLY
                                                                                                                                                                                                                                                                           EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                 MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MCP5_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         71 DICADPKKKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 EICADPSQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                           1997 (REL. 35, 1997 (REL. 35, 1998 (REL. 36, 1998 (REL. 36, 1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97445071.
SCHLUETER C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .C., LUSTER A.D.;
41:471-476(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97
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1 23 POTENTIA

24 97 ESTAXII.

32 57 BY SIMIL

33 73 BY SIMIL

37 7 L-> P

51 51 R-> S

51 S1 R-> S

51 S1 R-> S

61 S1 R-> S

79 79 79 79 K-> R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1
24
32
33
33
7
7
79
7
AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   86.2%;
                                                                                                                                                                                                                                                                                                                                                                         CREATED)
, LAST SEQUENCE UPDATE)
, LAST ANOUTATION UPDATE)
PROTEIN 5 PRECURSOR (MCP-5) (MCP-1 RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KULKE R., CHRISTOPHERS E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 81;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
L -> P (IN CLONE 3
A -> T (IN CLONE 3
R -> S (IN CLONE 5
K -> R (IN CLONE 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6C0F3D98
                                                                    MACLEAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GLYCOPROTEIN;
                                                                                                                                                                                         KREMER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 104 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ω
      ATTRACTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 1; L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CRC32
                                                                J.A.,
                                                                                                                                                                                       .
                                                                                                                                                                                                                                                                                              TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  34).
53).
53).
                                                                                                                                                                                         F
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                  CHARO
      EOSINOPHILS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL;
                                                                                                                                                                                       ۲.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SCHROEDER J.M.,
                                                                I.F
                                                                                                                                                                                         MARTINEZ A.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A PROMINENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
      MONOCYTES,
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C CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC
C INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A
C PIVOTAL ROLE DUBLING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION.
C -!- SUBUNIT: HOMODIMER (BY SIMILARITY).
C -!- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND
C THYMUS. ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES,
C HEAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.
C -!- INDUCTION: BY IEN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
C -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C -C-C) (CHEMOKINE CC).
R EMBL; U50712; G1477582; -.
R EMBL; U50712; G1477582; -.
ACE:1-...
MITOGEN)).
-!- SIMILARITY: LD78-ALF:..
-!- SIMILARITY: BELONGS TO TH:
-C-C) (CHEMOKINE CC).
CMBL; D00044; D1000469; -...
7452; G188559; -...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                      Ol-MAR-1989 (REL. 10, CREATED)
Ol-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
Ol-MAR-1989 (REL. 34, LAST ANNOTATION UPDATE)
Ol-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA)
(TONSILLAR LYMPHOCYTE LD78 ALPHA PROTEIN) (GOS19-1 PROTEIN) (SIS-BETA)
(PAT 464.1) (SMALL INDUCIBLE CYTOKINE A3).
SCYA3 OR MIP1A.
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                         BLUM S.,
DNA CELL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MIIA_HUMAN
P10147;
                                                                                        SEQUENCE FROM N.A.

MEDLLINE; 90287155.

NAKAO M., NOMIYAMA H., SHIMADA K.;

NOL. CELL. BIOL. 10:3646-3658(1990).

-!- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.

-!- INDUCTION: BY TPA OR PHA (TPA = 12-O-TETRADECANOYL PHORBOL-13

ACETATE (TUMOR PROMOTER); PHA = PHYTOHEMAGGLUTININ (T-CELL
                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
MEDLINE; 86223879.
OBARU K., FUKUDA M., MAEDA S.,
J. BIOCHEM. 99:885-894(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CYTOKINE; CHEMOTAXIS; SIGNAL 1 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; U66670; G1881583; -.
MGD; MGI:108224; SCYA12.
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                           SEQUENCE FROM N.A.
MEDLINE; 91103879.
BLUM S., FORSDYKE R.E., F
BLUM CELL BIOL. 9:589-602
                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. MEDLINE; 89140347.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                               EUTHERIA; PRIMATES
                                                                                                                                                                                                                                                                   Ξ
                                                                                                                                                                                                                                                                                        IPFEL P.F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              72
                                                                                                                                                                                                                                                                              IMMUNOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 EICADPSQKWV 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EICADPKEKWV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23
33
34
104 AA;
                                                                                                                                                                                                                                                                             , BALKE J., IRVING S. 142:1582-1590(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     83.0%;
larity 81.8%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     104
58
74
11659
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                                                                                                                                                                                                           FORSDYKE (1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MW;
                                                            THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AL; INFLAMMATORY RESPONSE.
BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 5.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 78; DB 1;
Pred. No. 2.04e-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                          -BETA ARE '
                                                                                                                                                                                                                                                                                                                                                            SHIMADA
                                                                                                                                                                                                                                                                                         .
.
                                                                                                                                                                                                                       D.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                           KELLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               92
                                                          VERY (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ₿
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۲.
                                                            CLOSELY
A FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 104;
                                                                                                                                                                                                                                                                                           SIEBENLIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                          RELATED.
(SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                           u.;
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RESULT TO A COLOR RESULT TO A COLOR RESULT TO A COLOR RESULT TO A COLOR RESULT 
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Best Local Similarity
Matches 8; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; M25315; G602453; -.

EMBL; X03754; G758089; -.

EMBL; X04018; G34297; ALT_SEQ.

EMBL; M33178; G182847; -.

EMBL; M33178; G182847; -.

EMBL; D90144; G219906; -.

EMBL; D90144; G219906; -.

PIR; A30574; A30574.

HSSP; P13236; 1HUM.

MIM; 182283; -.

MIM; 182283; -.

PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.

CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONS SIGNAL 1 22 POTENTIAL.

CHAIN 23 92

MACROPHAGE IN DISULFID 33 57 BY SIMILARITY DISULFID 34 73 BY SIMILARITY DISULFID 34 10055 M3.
                   SEQUENCE FROM N.A. MEDLINE; 91373378. NAPOLITANO M., MODI LEONARD W.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
DISULFID
SEQUENCE
                                                                                                         CHANG H.C., REINHERZ E.L.;

CHANG H.C., 19:1045-1051(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MIIB_HOMAN STANDARD; PRT; 92 AA.

P13236; P22617; Q13704;

01-JAN-1990 (REL. 13, CREATED)

01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)

01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)

01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)

ACTIVATION PROTEIN 2) (ACT-2) (PAT 744) (H400) (SIS-GAMMA) (LYMPHOCYTE ACTIVATION GENE-1 PROTEIN) (LAG-1) (HC21) (SMALL INDUCIBLE CYTOKINE ACTIVATION GENE-1 PROTEIN) (LAG-1) (HC21) (SMALL INDUCIBLE CYTOKINE ACTIVATION GENE-1 PROTEIN) (LAG-1) HC21) (SMALL INDUCIBLE CYTOKINE ACTIVATION GENE-1 PROTEIN).

SCYA4 OR MIPJB OR LAG1.

HOMO SAPIENS (HUMAN).

EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.

MEDLINE; 91061800.

BAIXERAS E., ROMAN-ROMAN S., JITSUKAWA S., G:
VIEGAS-PEQUIGNOT E., HERCEND T., TRIEBEL F.;

MOL. IMMUNOL. 27:1091-1102(1990).
                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
MEDLINE; 89093958.
BROWN K.D., ZURAWSKI S.M., MOSMANN T.R.,
J. IMMUNOL. 142:679-687(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
MEDLINE; 89140347.
ZIPFEL P.F., BALKE J., IRVING S.
J. IMMUNOL. 142:1582-1590(1989).
                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. MEDLINE; 89071764.
                                                                                                                                                                                                                                                            MOL. IMMUNOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LIPES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            71 QVCADPSEEWVQ
BIOL. CHEM. 266:17531-17536(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1
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EICADPSQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    M.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1
23
33
34
? AA;
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ACAD. SCI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        81.9%;
larity 66.7%;
Conservative
                                             MODI W.S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        82
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                                           CEVARIO S.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JEANG K.-T., CHANG N.T.,
.A. 85:9704-9708(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 77; DB 1; I
Pred. No. 3.51e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MACROPHAGE INFLAMMATORY
BY SIMILARITY.
BY SIMILARITY.
C24DD919 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESPONSE; SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KELLY
                                           GNARRA J.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                            ZURAWSKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ⊼:
                                                                                                                                                                                                                                                                                                                      GENEVEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIEBENLIST
                                                                                                                                                                                                                                                                                                                                                                                                                                          G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                         ი:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LEONARD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   92;
                                             SEUANEZ H.N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROTEIN 1-ALPHA
                                                                                                                                                                                                                                                                                                                           MECHICHE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ₫.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ε
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Barara
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Best Local s
Matches
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EMBL; M25316; G602455; -.

EMBL; M25316; G602455; -.

EMBL; M253683; G34218; -.

EMBL; X53683; G34218; -.

EMBL; X53683; G34218; -.

EMBL; X53683; G34218; -.

EMBL; X53683; G34218; -.

EMBL; M69203; G132376; JOINED.

EMBL; M69203; G1332376; JOINED.

EMBL; M69202; G1332376; JOINED.

EMBL; M69203; G132376; JOINED.

EMBL; M69203; G1323376; JOINED.

EMBL; M69203; G1323276; JOINED.

EMBL; M69203; G1323276; JOINED.

EMBL; M69203; G1322376; JOINED.

EMBL; M69203; G1322376; JOINED.

EMBL; M69203; JOINED.

EMBL; M69203; JOINED.

EMBL; M69203; JOINED.

EMBL; 
              MI10_HUMAN
P16619;
01-AUG-1990
01-AUG-1990
01-NOV-1997
                                                                                                                                                                                                                                                              TURN
HELIX
SEQUENCE
                                                                                                                                                                                                                                                                                                             STRAND
HELIX
STRAND
STRAND
STRAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -!- FUNCTION: MONORINE MITH INFLAMMATORY AND
-!- SUBUNIT: HOMODIMER.
-!- INDUCTION: BY MITOGENS.
-!- SIMILARITY: BELONGS TO THE INTERCRINE BET
--- C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE; 94182137.
LODI P.J., GARRETT D.S., KUSCEWSKI J.,
LEONARD W.J., GRONDENBORN A.M., CLORE G.
SCIENCE 263:1762-1767(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF 6-92 FROM N.A.
MEDLINE; 90038522.
MILLER M.D., HATA S., WAAL MALEFYT R.,
J. IMMUNOL. 143:2907-2916(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRUCTURE BY NMR
TONSILLAR LYMPHOCYTE LD78 BETA PROTEIN PRECURSOR (G0S19-2 PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                         STRAND
                                                                                                                                     72 QVCADPSESWVQ
::||||: |||
1 EICADPSQKWVQ
                                                                                                                                                                                                 h 81.9%;
Similarity 66.7%;
8; Conservative
                                                                                                                                                                                                                                                              (REL.
                                                                           STANDARD;
                                                                                                                                         12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SMALL_CYTOKINES_CC;
              15, CREATED)
15, LAST SEQUENCE UPDATE)
35, LAST ANNOTATION UPDATE
                                                                                                                                                                    83
                                                                                                                                                                                                                                                                90
10212 MW;
                                                                                                                                                                                                                                                                                                             7553
7553
7553
7553
7553
7553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFLAMMATORY RESPONSE; SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                  MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
BY SIMILARITY.
BY SIMILARITY.
T -> C (IN REF. 7).
A -> S (IN REF. 6).
P -> L (IN REF. 2).
ARKLPR -> REASS (IN REF. 3).
S -> I (IN REF. 7).
S -> G (IN REF. 7).
                                                                                                                                                                                                 Score 77; DB 1; L
Pred. No. 3.51e-05;
3; Mismatches 1
                                                                             PRT;
                                                                                                                                                                                                                                                              F18E7AFD
                 UPDATE)
                                                                           93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TSANG
                                                                                                                                                                                                                                                                CRC32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KRANGEL
                                                                           A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   M.L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHEMOKINETIC
                                                                                                                                                                                                                                 Length 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 X
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3D-STRUCTURE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WEATHERBEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROPERTIES
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                                                                                                                                                                                                   Gaps
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RESULTATION OF THE PROPERTY OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOL. CELL. BIOL. 10:3646-3658(1990).

CC -!- SIMILARITY: 464.1 AND 464.2 ARE VERY CLOSELY RELATED.

CC -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE CC CC C-C) (CHEMORINE CC).

DR EMBL; X52149; G296666; -.

DR EMBL; X52149; G296666; -.

DR EMBL; M24110; G182849; -.

DR EMBL; D90145; G219908; -.

DR EMBL; D90145; G21908; -.

PR EMBL; D90145; G21908; -.

R PIR; B30912; B30412.

R PIR; B35673; B35673.

R PIR; B35673; S10157.

R HSSP; P13236: 1uma
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUN-1994 (REL. 2
01-OCT-1996 (REL. 3
15-JUL-1998 (REL. 3
ECTAXIN PRECURSOR (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (PAT 464.2).
SCYABIL OR 464.2.
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE;
BLUM S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA CELL
                                    MEDLINE;
JOSE P.J.
                                                                                                                                                                                                                                                                                                                                                         CAVIA PORCELLUS (GUINEA EUKARYOTA; METAZOA; CHOI EUTHERIA; RODENTIA.
   WELLS
                                                                                                                                                          MEDLINE; 95173589.

ROTHENBERG M.E., LUSTER A.D., LILLY C.
J. EXP. MED. 181:1211-1216(1995).
                                                                                                                                                                                                                                                                  TISSUE-LUNG
                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HSSP; P13236
MIM; 601395;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. MEDLINE; 91103879.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BURD
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                                                               SEQUENCE FROM N.A. MEDLINE; 95091818.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P80325;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EOTA_CAVPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUCLEIC ACIDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE; 90287702.
IRVING S.G., ZIPFEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 72
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P.J., ADCOCK I.M., GR:
S T.C., WILLIAMS T.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EICADPSQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QVCADPSEEWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              h 81.9%;
Similarity 66.7%;
8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PS00472; SMALL_CYTOKINES_CC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FORSDYKE R.E., FORSDYKE BIOL. 9:589-602(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ., ZIPFEL P.F., BALKE J., MCBRIDE SIEBENLIST U., KELLY K.; IDS RES. 18:3261-3270(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29, CREATED)
34, LAST SEQUENCE UPDATE)
36, LAST ANNOTATION UPDATE)
(EOSINOPHIL CHEMOTACTIC PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              83
                                                                                                                                                                                                                                                                                                                                                                                       INEA PIG).
CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10161 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             93
58
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIGNAL.
GRIFFITHS-JOHNSON
J., POWER C.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 77;
Pred. No. (
3; Mismat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LD78 BETA / GOS19-2 / 464.
BY SIMILARITY.
BY SIMILARITY.
21EDDB04 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                          VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      96
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3.51e-05;
                              D.A.,
                                                                                                                                                                                               DRAZEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 93;
                              BERKMAN
                                                                                                                                                                                           J.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MORTON C.C.,
                                                                                                                                                                                           LEDER
                              Z
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RESULT POLY OF THE POLY OF THE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PSO0472; SMALL_CYTOKINES_CO

PROSITE; PSO0472; SMALL_CYTOKINES_CI

EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GI

INFLAMMATORY RESPONSE.

SIGNAL 24 96 EOTAXIN

CHAIN 24 96 EOTAXIN

DISULFID 31 56 BY SIMI

DISULFID 32 72 BY SIMI

CARBOHYD 93 93 POTENNI

CARBOHYD 93 93 POTENNI

CONFLICT 88 88 D -> G

SEQUENCE 96 AA; 10753 MW; DD28C;
                             -!- SUBUNIT: HOMODIMER.
-!- SIMILARITY: BELONGS TO THE C-X-C) (CHEMOKINE CXC).
EMBL; X78306; G463254; -.
EMBL; X74436; G786591; -.
EMBL; S74436; G786591; -.
PIR: $424496.
HSSP; P10145; 3118.
PROSITE; PS00471; SMALL_CYTOR
                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

MEDLINE; 95137691.

SEOW H.F., YOSHIMURA T., WOOD P.R., COLDITZ I.G.

IMMUNOL. CELL BIOL. 72:398-405(1994).

IMMUNOL. CELL BIOL. 72:398-405(1994).

IF FUNCTION: IL-8 IS A CHEMOTRACTIC FACTOR THAT

BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES.

NEUTROPHIL ACTIVATION. IT IS RELEASED FROM

NEUTROPHIL ACTIVATION. STIMULUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IL8_SHEEP
P36925;
01-JUN-1994
01-JUN-1994
01-NOV-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OVIS ARIES EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOSE P.J., GRIFFITHS-JOHNSON D.A., COLLINS P.D., WALSH D.T.,
MOQBEL R., TOTTY N.F., TRUONG O., HSUAN J.J., WILLIAMS T.J.;
J. EXP. MED. 179:881-887(1994).

-i- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTE:
DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.

-i- SUBCELLULAR LOCATION: EXTRACELLULAR.

-i- TISSUE SPECIFICITY: LUNG.

-i- TISSUE SPECIFICITY: LUNG.

-i- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOK:
C-C.) (CHEMOXINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LEGASTELOIS I., GREENLAND T., GENE 150:367-369(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; U18941; G687656; -.
EMBL; X77603; G602552; -.
HSSP; P13500; 1MCA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. MEDLINE; 95121931.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ol-JUN-1994 (REL. 29, CREATED)
Ol-JUN-1994 (REL. 29, LAST SEQUENCE UF
Ol-NOV-1995 (REL. 32, LAST ANNOTATION
INTERLEUKIN-8 PRECURSOR (IL-8).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE; 94157409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE OF 24-96.
STRAIN-HARTLEY; TISSUE-LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BIOCHEM. BIOPHYS. RES. COMMUN. 205:788-794(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             71 ICADPKKKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ICADPSQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
PS00471; SMALL_CYTOKINES_CXC; CHEMOTAXIS; INFLAMMATORY RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (SHEEP).
METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   80.9%;
81.8%;
                                                                                                                                                                                                                                                THE
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BY SIMILARITY.
BY SIMILARITY.
POTENTIAL.
D -> G (IN REF. :
DD28C7E5 CRC32;
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
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GLYCOPROTEIN;
RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                           FACTOR THAT ATTRACTS NEUTROPHILS, MONOCYTES. IT IS ALSO INVOLVED IN LEASED FROM SEVERAL CELL TYPES IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COLDITZ I.G.;
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6.01e-05;
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                                                                                                                              EMBL; U10308;
PROSITE; PSOO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-FEB-1995 (REL. )
01-FEB-1995 (REL. )
01-NOV-1995 (REL. )
INTERLEUKIN-8 PRECI
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CHAIN
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                                                                                                               SIGNAL
                                                                                                                        CYTOKINE;
                                                                                                                                            C-X-C) (CHEMOKINE CXC).
EMBL; D28772; G517100; -.
EMBL; D14285; G475152; -.
EMBL; U10308; G607814; -.
                                                                                                                                                                                                                                        KUKIELKA G.L., SMITH W.C., LAROSA G.J., MANNING A.M., MENDOZA L.H., DALY T.J., HUGHES B.J., YOUKER K.A., HAWKINS MICHAEL L.H., ROT A., ENYANA M.L.;
J. CLIN. INVEST. 95:89-103(1994).
                                                                                                                                                                                                                                                                     MEDLINE; 95114148
KUKIELKA G.L., SM
                                                                                                                                                                                                                                                                                                                   MATSUMOTO Y., MOHAMED A., ONODERA T., KATO H., CHASHI T.
GOITSUKA R., TSUJIMOTO H., HASEGAWA A., FURUSAWA S., YOS
ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.;
CYTOKINE 6:455-461(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                      CANIS FAMILIARIS (DOG).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                ---
                                                                                                                                                                                                                                                                                       STRAIN-MONGREL;
                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                         TISSUE-LYMPH NODE;
MEDLINE; 95127913.
                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                               EUTHERIA;
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                   75
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_CANFA
                                                                                                                                                                               RESPONSE TO AN INFLAMMATORY STIMULUS. SUBUNIT: HOMODIMER. SIMILARITY: BELONGS TO THE INTERCRINE
                                                                                                                                                                                                           FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS, BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EICADPSQKWVQ 12
           EVCLDPKEKWVQ 86
EICADPSQKWVQ 12
                                     Similarity 66.7% 8; Conservative
                                                                                                                                  0308; G607814; -. PS00471; SMALL_C
                                                                                                            PS00471; SMALL_CYTOKINES_CXC; 1.
CHEMOTAXIS; INFLAMMATORY RESPONSE;
BY SIMILARITY.
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31, LAST SEQUENCE UI
32, LAST ANNOTATION
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                                             Score 76;
Pred. No.
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INTERLEUKIN-8.
BY SIMILARITY.
BY SIMILARITY.
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                                                                          7C49D62D
                                                                        SIMILARITY.
7C49D62D CRC32;
                                                                                            SIMILARITY.
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                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                         HIROTA Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       76; DB 1; NO. 6.01e-05
                                            DB 1; I
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                                                                                                                                                                                ALPHA
                                                                                                                        SIGNAL
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                                                      Length 101;
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                                                                                                                                                                                                                                                                                                                                                                                                         SUZUKI K.;
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                                    Gaps
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IIB_PIG STAI

P26894; P22951;

01-AUG-1991 (REL.

01-AUG-1992 (REL.

01-OCT-1996 (REL.
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DISULFID
CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
MEDLINE; 94103307.
LIN G., PEARSON A.E., SCAMURRA
WEISS D.J., MURTAUGH M.P.;
J. BIOL. CHEM. 269:77-85(1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                           -!- SUBUNIT: HOMODIMER.
-!- TISSUE SPECIFICITY.
-!- INDUCTION: BY LIPOPOLYSACCHARIDE.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA
C-X-C) (CHEMOKINE CXC).
EMBL; M86923; G164521; -.
EMBL; X61151; G516197; -.
EMBL; M99367; G1235612; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE: 91217086.

GOODMAN R.B., FORSTROM J.W., OSBORN S.G., CHI E.Y., MARTIN T.R.;

GOODMAN R.B., FORSTROM J.W., OSBORN S.G., CHI E.Y., MARTIN T.R.;

J. BITCL. CHEM. 266:8455-8463(1991).

-i- FUNCTION: II-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,

-i- FUNCTION: II-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,

BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN

NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN

RESPONSE TO AN INFLAMMATORY STIMULUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE; 93041741.

GOODMAN R.B., FOSTER D.C., MATHEWES FORSTROM J.W., MARTIN T.R.;
BIOCHEMISTRY 31:10483-10490(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                         CHAIN
                                                                                                                                                                                                                                                                                                                                     CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                               PIR; A44253; A44253.
PIR; A39819; A39819.
HSSP; P10145; 3IL8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN-YORKSHIRE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE OF 26-45.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GOODMAN R.B.
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EUTHERIA; ARTIODACTYLA.
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                                                                                                                                                                                                                                                                                                                SIGNAL
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 I) (AMCF-I).

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                                         75
EICADPSQKWVQ
                                         EVCLDPKEKWVQ 86
                                                                                   Similarity 66.7%;
8; Conservative
                                                                                                                                                                                                                                                                                                                                                          PS00471; (
                                                                                                                                                                                                                                                                                                                                     CHEMOTAXIS;
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REL. 23, LAST SEQUENCE UPDATE)
REL. 34, LAST ANNOTATION UPDATE)
PRECURSOR (IL-8) (ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
                                                                                                                                                                              Α
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                                                                                                                                                                                                                                                                                                                                     LL_CYTOKINES_CXC; 1.
INFLAMMATORY RESPONSE;
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                                                                                                                                                                                ¥.
                                                                                                          Score 76; Pred. No.
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2; N
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BY SIMILARITY.
BY SIMILARITY.
RC -> CR (IN RE
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                                                                                                                                                                              A012D59D
                                                                                   e 76; DB 1; Leg
. No. 6.01e-05;
Mismatches 2;
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> KK (IN REF. 
)12D59D CRC32;
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                                                                                                                                                                                                                                                                                                                                     SIGNAL.
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2).
                                                                                                                               Length 103;
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P14844;
01-APR-1990
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01-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (IMMEDIATE-EARLY
SERUM-RESPONSIVE JE PROTEIN).
SCYAZ OR JE OR MCP1.
                                                    STRAIN=CD-1; TISSUE=LUNG; MEDLINE; 95298037.
SHI M.M., GODLESKI J.J.,
                                                                                                                                                                                                           MACROPHAGE INFLAMMATORY PROTEIN SCYA3 OR MIP1A.
                                                                                                                                                                                                                                                 P50229;
01-OCT-1996 (REL. 34,
01-OCT-1996 (REL. 34,
01-NOV-1997 (REL. 35,
                                      віоснем.
                                                                                                                                                                                           RATTUS NORVEGICUS (RAT)
  SEQUENCE FROM N.A
                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                         EUTHERIA;
                                                                                                                                                                         EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                MI1A_RAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PIR; JN0128; JN0128.
PIR; S07723; S07723.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; X17053; G55531; -. EMBL; M57441; G205334; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YOSHIMURA T., TAKEYA M., TAKAHASHI K.; BIOCHEM. BIOPHYS. RES. COMMUN. 174:504-509(1991)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUCLEIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TIMMERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN=WAG/RIJ;
MEDLINE; 901749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RATTUS NORVEGICUS (RAT)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                               73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity 75.0%; les 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                            مو
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SIMILARITY: BELONGS TO THE INTI
C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                  24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FUNCTION: CHEMOTACTIC FACTOR THAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23
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                                                                                                                                                                                                                                                                                                                                                                                                          EICADPSQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                               EICADPNKEWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P13500;
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                                      BIOPHYS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             91128376
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                                                                                                                                                         RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           34
35
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SMALL_CYTOKINES_CC; 1.
XIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
                                      RES.
                                                                                                                                                                                                                                                                                                                                                                                                            12
                                                                                                                                                                                                                                                                                                                                                                                                                                               84
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75
126
16460
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148
24
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4, LAST SEQUENCE UPDATE)
15, LAST ANNOTATION UPDATE)
7,7000 PROTEIN 1-ALPHA PRECURSOR (1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     80.9%;
                                                                                                                                                                       CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                    ., PAULAUSKIS J.D.;
COMMUN. 211:289-295(1995).
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Pred.
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BY SIMILARITY.
BY SIMILARITY.
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DB97F97C CRC32
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MONOCYTE CHEMOTACTIC PROTEIN 1.
                                                                                                                                                                                                                                                                                                                                PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     76; DB 1; I
No. 6.01e-05;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 148;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EB
                                                                                                                                                                                                                               (MIP-1-ALPHA).
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(SMALL CYTOKINE
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Best Local S
Matches
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Q16627;
01-NOV-1997
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01-NOV-1997 (REI
CHEMOKINE CC-1 I
SCYA14 OR NCC2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHAIN
DISULFID
DISULFID
CONFLICT
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAKAGAWA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;
BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948 (1996).

-!- FUNCTION: MONKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTI
HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPHI
BASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LUNG THY-ALPHA
PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY
MAY FUNCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE
PRODUCTION OF THY-ALPHA WHICH IN TURN UP-REGULATES VASCULAR
PRODUCTION OF THY-ALPHA WHICH IN TURN UP-REGULATES VASCULAR
                                                                                                                                                                                                                                            SCHULZ-KNAPPE P., MAEGERT H.-J., D
KUBBIES M., TOMECZKOWSKI J., KIRCH
KIST A., REINECKE M., SILLARD R.,
BAGGIOLINI M., FORSSMANN W.-G.;
                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.,
TISSUE-BONE MARROW;
MEDLINE; 96136773.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL;
                                      SEQUENCE FROM N.A. TISSUE-PLACENTA;
                                                                                                                                                                                                                                                                                                                                                                                                                  EUKARYOTA; METAZOA;
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                            SCYAl4 OR NOW.
HOMO SAPIENS (HUMAN).
CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -!- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
-!- SIMILARITY: BELONGS TO THE INTERCRINE E
C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN-LONG EVANS; TISSUE-LUNG;
MEDLINE; 95238980.
SHANLEY T.P., SCHMAL H., FRIEDL
J. IMMUNOL. 154:4793-4802(1995).
                   PARDIGOL A., MAEGERT
                                                                                                                            PARDIGOL A., MAEGERT SCHULZ-KNAPPE P.;
                                                                                                                                                               TISSUE=LIVER;
                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIGNAL
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                                                                                                       SUBMITTED
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              71 QICADPKETWVQ
                                                                                                                                                                                                                             EXP. MED.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EICADPSQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          U22414; G790633;
U06435; G459150;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PS00472; SMALL_CYTOKINES_CC; 1.; CHEMOTAXIS; INFLAMMATORY RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96183056
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                                                                                                     (MAY-1996)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (REL. 35, CREATED)
(REL. 35, LAST SEQUENCE UPDATE)
(REL. 35, LAST ANNOTATION UPDATE)
C-1 PRECURSOR (HCC-1) (NCC-2).
                                                                                                                                                                                                                           183:295-299(1996).
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35
57
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66.7%;
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                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE OF 20-93
                                                                                                  EMBL/GENBANK/DDBJ
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                                                                                                                                                                                                                                                                  RD R., PARDIGOL A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 75; DB 1; I
Pred. No. 1.03e-04;
2; Mismatches 2
                   CIESLAK
                                                                                                                                           ZUCHT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA. BY SIMILARITY.
BY SIMILARITY.
A -> T (IN REF. 2).
C -> W (IN REF. 2 AND 3).
F48CF89F CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                   VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FOR NEUTROPHIL
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                                                                                                                                           Ħ.D.,
                     Α.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JONES M.L., WARD P.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      93
                                                                                                                                           FORSSMANN W. -G
                     TILH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ₽
                                                                                                       DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BETA FAMILY
                                                                                                                                                                                                                                                               , MEYER M., CETIN RAIDA M., ADERMAN A., UGUCCIONI M.,
                     o
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 92;
                                                                                                       BANKS
                     SCHULZ - KNAPPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HEPARIN-BINDING
                                                                                                                                                                                                                                                                                         ADERMANN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       THIS PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EOSINOPHILS,
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Best Local S
Matches
                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                                                                                         Matches
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EMBL; Z49270; G1004269; -.

EMBL; Z70292; E233856; -.

EMBL; Z49269; G1004267; -.

MIM; 601392; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCC3_HUMAN STANDARD; PRT; 109 AA.
013954;
01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
CHEMOKINE CC-3 PRECURSOR (HCC-3).
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBMITTED (OCT-1995) TO EMBL/GENBANK/DDBJ DATA BANKS.

-! FUNCTION: HAS WEAK ACTIVITIES ON HUMAN MONOCYTES AND ACTS VIA RECEPTORS THAT ALSO RECOGNIZE MID-1 ALPHA. IT INDUCED INTRACELLULAR CA2+ CHANGES AND ENZYME RELEASE, BUT NO CHEMOTAXIS, AT CONCENTRATIONS OF 100-1,000 NM, AND WAS INACTIVE ON T LYMPHOCYTES, NEUTROPHILS, AND EOSINOPHIL LEUKOCYTES. ENHANCES THE PROLIFERATION OF CD34 MYELOID PROGENTIOR CELLS.

-!- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN SEVERAL NORMAL TISSUES: SPLEEN, LIVER, SKELETAL AND HEART MUSCLE, GUT, AND BONE MARROW, PRESENT AT HIGH CONCENTRATIONS (1-80 NM) IN PLASMA.

-!- SINILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE CEC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DISULFID DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C-C) (CHEMOKINE CC).

EMBL; Z70293; E233858; -.

PROSITE; PS00472; SMALL_CYTOKINES_CC;
   P80343;
01-FEB-1995
                                                                  MCPB_BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CYTOKINE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBMITTED (MAY-1996) TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PARDIGOL A., MAEGERT H.-J., SCHULZ-KNAPPE P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CYTOKINE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ISSUE-LIVER;
                                                                                                                                                                                                                                                          90 VCTNPSDKWVQ 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           74 VCTNPSDKWVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N
                                                                                                                                                                                                    N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIMILARITY: BELONGS
                                                                                                                                                                                              ICADPSQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ICADPSQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PS00472; SMALL_CYTOKINES_CC;
                                                                                                                                                                                                                                                                                                                                                                                                                                           1
51
52
109
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(REL.
                                                                                                                                                                                                                                                                                                                      79.8%;
llarity 63.6%;
Conservative
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36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ₽,
                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                           7
109
75
91
12297
   31, CREATED)
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93
59
75
10678
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL/GENBANK/DDBJ DATA BANKS.
TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ₩;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        WW.
                                                                                                                                                                                                                                                                                                                      Score 75; DB 1; L
Pred. No. 1.03e-04;
4; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                              POTENTIAL.
CHEMOKINE CC-3.
BY SIMILARITY.
BY SIMILARITY.
A; 9AE90F93 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZUCHT H.D., FORSSMANN W.-G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 75; DB 1; I
Pred. No. 1.03e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CHEMOKINE CC-1.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Н
                                                               74
                                                                  B
                                                                                                                                                                                                                                                                                                                                                                                         Length 109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 93;
                                                                                                                                                                                                                                                                                                                         ç
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                                                                                                                                                                                                                                                                                                                      0;
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Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                 SISD_MOUSE STANDARD; PRT; 91 AA.
p30882;
01-JUL-1993 (REL. 26, CREATED)
01-JUN-1994 (REL. 29, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
T-CELL SPECIFIC RANTES PROTEIN PRECURSOR (SIS-DELTA) (SMALL INDUCIBLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NON_TER
DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROOST P., WUYTS A., LENAERTS J.-P., VAN DAMME J.;
BIOCHEMISTRY 33:13406-13412(1994).

-I- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN CAN BIND HEPARIN.

-I- PIM: THE N-TERMINAL IS BLOCKED.
-I- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE CC).

PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
MEDLINE; 92277990.
HEEGER P., WOLF G., MEYERS C.,
KRENSKY A.M., NEILSON E.G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1B (MCP-1B) (FRAGMENT).
BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                  MEDLINE; 94217689.
SHIN H.S., DRYSDAI
PAZNEKAS W.A.;
                                                                                        SEQUENCE FROM N.A. STRAIN-BALB/C;
                                                                                                                        MEDLINE; 94132613.
DANOFF T.M., LALLEY P.A., CHANG Y.S.,
J. IMMUNOL. 152:1182-1189(1994).
                                                                                                                                                                                                        MEDLINE; 92289805.
SCHALL T.J., SIMPSON N.J., MAK J.Y.;
EUR. J. IMMUNOL. 22:1477-1481(1992).
NOL. CELL. BIOL. 14:2914-2925(1994).
-I- FUNCTION: CHEMOATTRACTANT FOR BLOOD MONOCYTES,
-CELLS AND EOSINOPHILS. CAUSES THE RELEASE OF H
BASOPHILS AND ACTIVATES EOSINOPHILS.
                                                                                                                                                                                                                                                                                                                                                                   EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                               MUS MUSCULUS (MOUSE).
                                                                                                                                                                                                                                                                                                                                                                                              SCYA5
                                                                                                                                                                                                                                                                                                                                                                                                         CYTOKINE A5)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                         KIDNEY INT. 41:220-225(1992).
                                                                                                                                                                                                                                                                                                                                                        EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE; 95034774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE-KIDNEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              48 EICAEPKXXWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EICADPSQKWVQ
                                                               DRYSDALE B.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             74 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10
                                                                                                                                                                                                                                                                                                                                                                                                         (MURANTES).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8360 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     78.78;
66.78;
                                                                                                                                                                                                                                                                                                                                                                  CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            50
                                                               SHIN M.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 74; DB 1; I
Pred. No. 1.75e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BY SIMILARITY.
BY SIMILARITY.
66172F08 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1;
                                                                                                                                                                                                                                                                                                   SUN M.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                               NOBLE P.W.,
                                                                                                                                             HEEGER P.S.,
                                                                                                                                                                                                                                                                                                     O'FARRELL S.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 74;
              HISTAMINE
                                                                 FISHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                         MEMORY T HELPER
                                                                                                                                             NEILSON E.G.;
                                                                 S.N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
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RESULT
AC PA
RESULT 30
ID SISD_RAT STANDARD; 1
AC P50231;
DT 01-OCT-1996 (REL. 34, CREATED)
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Best Local :
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Best Local :
                                                                                                                                                                                                          Matches
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                                                                                                                                                                                                                                                                                       DISULFID
DISULFID
SEQUENCE
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DISULFID
CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
STRAIN-NEW ZEALAND WHITE;
MEDLINE; 94198229.
MORI S., GOTO K., GOTO F., MUTAKAMI K., OHKAWARA S.,
INT. IMMUNOL. 6:149-156(1994).
-I- FUNCTION. MONOKINE WITH INFLAMMATORY AND CHEMOKIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (BY SIMILARITY).

-!- SUBUNIT: HOMODIMER (BY SIMILARITY).

-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY

-:- C-C) (CHEMOKINE CC).

EMBL; D17402; G599578; -.

PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.

CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MIIB_RABIT STANDARD; PRT; 92 AA.

P46632;
01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA) (IMMUNE ACTIVATION PROTEIN 2) (ACT-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIGNAL
CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORYCTOLAGUS CUNICULUS (RABBIT).
EUKARYOTA; METALOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MGD; MGI:98262; SCYA5.
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                     CHAIN
                                                                                                                                                                                                                                                                                                                                                                          SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EUTHERIA; LAGOMORPHA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CYTOKINE;
                                                                                                                                                                  72 QVCANPSESWVQ 83
                                                                                                                                                                                                       Local Similarity tes 7; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    71 QVCANPEKKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity les 7; Conser
                                                                                                                            1 EICADPSQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Н
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2; CHEMOTAXIS; T-CELL;
1 23 T
24 91 T
0 33 57 B
0 34 73 B
19 19 T
                                                                                                                                                                                                                                                                                   1
24
34
35
3A;
                                                                                                                                                                                                                                                                                            92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            91 AA;
                                                                                                                                                                                                            Conservative
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19
19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 78.7%;
58.3%;
                                                                                                                                                                                                                                                                                          10066 MW;
                                                                                                                                                                                                                               78.7%;
58.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10071 MW;
                                                                                                                                                                                                                                                                                                               23
58
74
                                                                                                                                                                                                       Score 74; DB 1; I
Pred. No. 1.75e-04;
4; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 74; DB 1; L
Pred. No. 1.75e-04;
3; Mismatches 2
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BY SIMILARITY.
T -> A (IN REF.
A -> E (IN REF.
                                                                                                                                                                                                                                                                                   BY SIMILARITY.

MACROPHAGE INFLAMMATORY PROTEIN
BY SIMILARITY.
BY SIMILARITY.
A629AB2D CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          POTENTIAL.
T-CELL SPECIFIC RANTES
                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            E616A203 CRC32;
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                                                                                                                                                                                                                                               Length 92;
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STRAIN-LONG EVANS; TISSUE-LUNG;

STRAIN-LONG EVANS; TISSUE-LUNG;

JONES M.L., SHANLEY T.P., WARD P.A.;

JONES M.L., SHANLEY T.P., WARD P.A.;

SUBMITTED (FEB-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.

-I- FUNCTION: CHEMOATTRACTANT FOR BLOOD MONOCYTES, MEMORY T HELPER

CELLS AND EOSINOPHILS. CAUSES THE RELEASE OF HISTAMINE FROM

BASOPHILS AND ACTIVATES EOSINOPHILS (BY SIMILARITY).

-I- SIMILARITY; BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
T-CELL SPECIFIC RANTES PROTEIN PRECURSOR (SIS-DELTA) (SMALL INDUCIBLE CYTOKINE A5).
                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIGNAL
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EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CYTOKINE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PS00472; SMALL_CYTOKINES_CC; 1.
CHEMOTAXIS; T-CELL; SIGNAL; INFLAMMATORY RESPONSE.
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34
35
92 AA;
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A; CHORDATA;
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Pred. No. 1.75e-04;
3; Mismatches 2
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BY SIMILARITY.
BY SIMILARITY.
9F897698 CRC32;
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1 77 81.9 80 4 014745 LLD78 ALPHA BETA PRECUR 1.58e-04 2 73 77.7 97 13 057411 LYMPHOTACTIN PRECURSOR 1.31e-03 3 73 77.7 395 11 035188 NEUROTACTIN PRECURSOR 1.31e-03 4 73 77.7 395 11 035933 FRACTALKINE. 1.31e-03 5 72 76.6 92 11 0389430 CC CHEMOKINE ABCD-1. 5.93e-03 6 70 74.5 92 11 088430 CC CHEMOKINE ABCD-1. 5.93e-03 7 70 74.5 120 4 00175 MPIF-2. 9.74e-03 9 68 72.3 91 4 0403646 RANTES PRECURSOR. 1.60e-02 10 68 72.3 97 11 089903 CC CHEMOKINE EXODUS. 1.60e-02 11 68 72.3 97 6 062812 RANTES PRECURSOR. 1.60e-02 12 67 70.2 133 11 009006 BETA CHEMOKINE EXODUS. 1.60e-02 13 66 70.2 133 11 009006 BETA CHEMOKINE EXODUS. 1.00e-01 15 64 68.1 95 14 099664 CC CHEMOKINE EXODUS. 1.00e-01 16 64 68.1 96 11 P97884 CC CHEMOKINE EXODUS. 1.10e-01 17 62 66.0 109 11 055038 B LYMPHOCYTE CHEMOATTR 2.84e-01 18 61 64.9 101 13 093238 CC CHEMOKINE-DERIVED CHE 4.52e-01 19 61 64.9 552 5 046178 RADIAL SPOKKEHEAD. 4.52e-01	the number of than or equid by analysis	sptrembl8  1:sp_archea 2:sp_bacteria 3:sp_fungi 4:sp_5:sp_invertebrate 6:sp_mammal 7:sp_mhc 8:9:sp_phage 10:sp_plant 11:sp_rodent 12:sp_9:sp_bage 10:sp_plant 11:sp_virus  13:sp_vertebrate 14:sp_virus  Mean 25:153; Variance 33:783; scale 0:745	on: core: able:	Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd MPsrch_pp protein protein database search, using Smith-Waterman algorithm Run on: Thu Apr 1 07:36:48 1999; MasPar time 4.96 Seconds Tabular output not generated.	
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Q 04745

Q 14745

PRELIMINARY; PRT; 80 AA.

Q 14745;

Q 14745;

P 01-NOV-1996 (TREMBLREL. 01, CREATED)

P 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)

P 01-NOV-1996 (TREMBLREL. 08, LAST ANNOTATION UPDATE)

E LD78 ALPHA BETA PRECURSOR (FRAGMENT).

S HOMO SAPIENS (HUMAN).

S EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUCATARRHINI; HOMINIDAE; HOMO.
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Best Local Similarity
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057411; PRELIMINARY;
057411;
01-JUN-1998 (TREMBLREL 0)
01-JUN-1998 (TREMBLREL 0)
01-JUN-1998 (TREMBLREL 0)
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SEQUENCE
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GALLUS GALLUS (CHICKEN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIGNAL.
                                                                                                                                                                                                                              ROSSI D.L., BAZAN J.F., ZLOTNIK A.;
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS
EMBL; AF006742; G2827882; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ISHIZUKA K., IGATA-YI R., NARUSE KATSURAGI S., KIN Y., OHMOTO Y., MIYAKAWA T.;
                                                                                                                                          SEQUENCE
                                                                                                                                                               CHAIN
                                                                                                                                                                                    SIGNAL
                                                                                                                                                                                                           SIGNAL.
                                                                                                                                                                                                                                                                                               TISSUE-SPLEEN;
                                                                                                                                                                                                                                                                                                                                                                 NEOGNATHAE; GALLIFORMES;
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TISSUE=BRAIN;
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                                                                      Score 73; DB 13;
Pred. No. 1.31e-03;
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Pred. No. 1.68e-04;
3; Mismatches 1
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                                                                                                                                       LYMPHOTACTIN. 3290101C CRC32;
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LD78 ALPHA BETA.
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                                                 Mismatches
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ENVELOPE GLYCOPROTEIN.
HYPOTHETICAL PROTEIN C
T2488.7 PROTEIN.
COSMID F31D5.
PATIENT 3799(9-93), CL
ENVELOPE GLYCOPROTEIN.
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EMBL; AF010586; G2317698; G2917698; MGD; MGI:1097153; SCYD1.
PFAM; PF00048; 118; 1.
SEQUENCE 395 AA; 42098 M
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O35188;
O1-JAN-1998
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Q98158; 012569;
Q98158; 012569;
01-FEB-1997 (TRE
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01-NOV-1998 (TRE
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035933;
01-JAN-1998
01-JAN-1998
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FRACTALKINE.
MUS (MOUSE)
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA;
ECIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PAN Y., CLARE I., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH GOSSELIN M., MA J., DUSSAULT B., WOOLF B., ALPERIN A., CULPEPPER GUTIERREZ-RAMOS J.C., GEARING D.; "Neurotactin, a membrane-anchored chemokine upregulated in brain inflammation.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SCYD1
                                                                                                                                                                                                                SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA EMBL; U92565; G2459677; -. PFOMM; PFOMM48; 118; 1. SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;
                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
STRAIN-BALB/C; TISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. MEDLINE; 97320499.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MUS MUSCULUS
EUKARYOTA; M
                                                                                                                                                                                                                                                                       ZLOTNIK A.,
                                                                                                                                                                                                                                                                                    ROSSI D., HARDIMAN G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SCIUROGNATHI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NEUROTACTIN.
                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       73 FCADPKEKWVQ
                                                                                                                                      73 FCADPKEKWVQ
                                                                                                            N
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 ICADPSQKWVQ
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                                                                                                            ICADPSQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US (MOUSE).
METAZOA; CHORDATA; VERTEBRATA;
MOTDAE: MURINAE; MUS.
7 (TREMBLREL.
7 (TREMBLREL.
8 (TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (TREMBLREL.) (TREMBLREL.
                                                                                                                                                                                                                                                                       BAZAN J.F.;
                                                                                                                                                                                                                                                                                                                                                                                                         (TREMBLREL.
                                                                                                                                                               77.7%;
larity 72.7%;
Conservative
                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                      83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.
42098 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       77.78;
72.78;
                                                                                                                                                                                                         1.
42040 MW;
                                                                                                                                                                                                                                                                                      COPELAND
                                                                                                                                                                                                                                                                                                                                                                                             05,
05,
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05,
04
04,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 73; DB 11;
Pred. No. 1.31e-03;
2; Mismatches 1
CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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LAST SEQUENCE UPDATE)
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                              Score 73; DB 11;
Pred. No. 1.31e-03;
2; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
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                                                                                                                                                                                                                                                                                    GILBERT D.J.,
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                                                                                                                                                                                       Length 395;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 395
                                                                                                                                                                                                                                                           BANKS
                                                                                                                                                                                                                                                                                      JENKINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                        EUTHERIA; RODENTIA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local s
Matches
                                               O88430 PRELIMINARY; PR
O88430;
O88430;
O1-NOV-1998 (TREMBLREL 08, CREP
O1-NOV-1998 (TREMBLREL 08, LAST
O1-NOV-1998 (TREMBLREL 08, LAST
O1-NOV-1998 (TREMBLREL 08, LAST
CC CHEMOKINE ARCD-1
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.

NICHOLAS J., RUVOLO V.R., BY
HENDRICKSON S., GUO H.G., H
SUBMITTED (NOV-1996) TO EMI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.

SUN R., LIN S.-F., MILLER G.;
SUBMITTED (SEP-1996) TO EMBL/GE
EMBL; U75598; G1118266; -.
EMBL; U74555; G1658273; -.
EMBL; U93872; G2246546; -.
EMBL; U93872; U93872; U93872; -.
EMBL; U93872; U9387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RUSSO J.J.,
PARRY J.P.,
SUBMITTED (M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORF K6.
KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.
VIRUSES, DSDNA VIRUSES, NO RNA STAGE; HE
GAMMAHERPESVIRINAE; RHADINOVIRUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B. "Cell-homologous genes in the Kaposi's sa human herpesvirus 8: determinants of its J. VIROL. 71:4187-4192(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. MEDLINE; 97296220.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RUSSO J.J., BOHENZKY R.A., PARRY J.P., PERUZZI D., ED SUBMITTED (OCT-1996) TO EM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROC. NATL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.; "Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      genes by KSHV.";
SCIENCE 274:1739-1744(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOORE P.S., BASHOFF C., WEI:
"Molecular mimicry of human
genes by KSHV.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (HHV8)
                                                                                                                                                                                                                                                                                                                                                                                                                                                               74
                                                                                                                                                                                                                                                                                                                                                                                                                                        QICADPSKNWVR
                                                                                                                                                                                                                                                                                                                                                                                                  :|||||| :||:
EICADPSQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ., PERUZZI D., (MAY-1997) TO
                            SCIUROGNATHI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BOHENZKY R.A., CHIEN M.C., CHEN J., YAN N
PERUZZI D., EDELMAN I.S., CHANG Y., MOORI
MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACAD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     76.6%;
larity 66.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N.A
                                                                                                                                                                                                                                                                                                                                                                                                        12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A., CHIEN M.C., CHEN J., EDELMAN I.S., CHANG Y., EMBL/GENBANK/DDBJ DATA F
                            RDATA; VERTEBRATA; MURIDAE; MURIDAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ., BURNS W.H., SANDFORD G., WA., HAYWARD G.S., REITZ M.S.; EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL/GENBANK/DDBJ DATA BANKS
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uman cytokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 72;
Pred. No.
3; Misma
                                                                                                                                               CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5283348D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     No. 2.18e-03;
Mismatches 1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N B.;
s sarcoma-associated ;
its pathogenicity?";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and
                                                                                                                                                                                                                                                                               92
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CRC32;
                                                                                                                                                                                                                                                                            Å
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                            NUS.
                                                      MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YAN M.,
MOORE P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YAN M.,
MOORE P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WAN
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.S.;
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Best Local S
Matches
                                                                                                             Query Match
                                                                                                                                                                    EMBL; AB007454; D1024963; -.
EMBL; AF088219; G3719365; -.
EMBL; AF055467; G3395776; -.
PFAM; PF00048; 118; 1.
SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     O15467 PRELIMINARY;
O15467;
O15467;
O1-7AN-1998 (TREMBLREL. 05, C
O1-JAN-1998 (TREMBLREL. 05, L
O1-NOV-1998 (TREMBLREL. 08, L
IL-10-INDUCIBLE CHEMOKINE.
ILLINCK OR SCYA16.
                                                                                                                                                                                                                                                                                                                                                             YOUN B.S.,
HANGOC G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HOMO SAPTENS (HUMAN).
HOMO SAPTENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE-LIVER;
SHOUDAI K., HIESHIMA
YOSHIE O., NOMIYAMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
TISSUE-LIVER;
MEDLINE; 98353531.
SCHANIEL C., PARDALI E., SALLUSTO F., SPELETAS M.,
SHIMIZU T., SEIDL T., ANDERSSON J., MELCHERS F., R
SIDERAS P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CC chemokine which acts selectively J. EXP. MED. 188:451-463(1998). EMBL; AF052505; G3378116; -.
                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                       BIOCHEM.
                                                                                                                                                                                                                                                                                                       monocyte chemoattractant human activity.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Structure
SUBMITTED (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBMITTED
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                                                                                                                                                                                                                                                                                                                                           HANGOC G., KWON B.S.;
"Isolation and characterization
                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NOMIYAMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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                                   74
                                                                                             Local
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EICADPSQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EICADPSQKWV
                                 EVCTNPNDDWVQ
                                                                                                                                                                                                                                                               EM. BIOPHYS. RES. (
U91746; G2581781;
                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                  E FROM N.A. ; 98308096.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               н.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (NOV-1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                          e of a region (
(AUG-1998) TO
                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                              ZHANG S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        92 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HIESHIMA K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         74.5%;
llarity 72.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N.A.
, HELMS A., G
                                                                         Conservative
                                                                                                                                                  AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     84
12
                                     85
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10302 MW;
                                                                                         74.5%;
                                                                                                                                                    13600
                                                                                                                                                                                                                                                                                                                                                                              BROXMEYER
                                                                                                                                                                                                                                                                                                                                                                                                                                                          of 181 kb containing five CC of 181 kb containing five CC of EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                     COMMUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0:0-0(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GORMAN D., ZLOTNIK
EMBL/GENBANK/DDBJ I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FUKUDA S.,
                                                                                                                                                    ¥.
                                                                     Score 70; DI
Pred. No. 5.9
5; Mismatch
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 70; DB 11; Le
Pred. No. 5.93e-03;
1; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BC7219A0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                                                                                                       of LMC, a novel lymphocyte CC chemokine, with myelosupp
                                                                                                                                                                                                                                                                                                                                                                              H.E.,
                                                                                                                                                    A079DF66
                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            dendritic cells
on activated T
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                         DB 4; 1
5.93e-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CRC32;
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                                                                                                                                                                                                                                                                                                                                                                              Χ.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MIURA
                                                                                                           Length 120;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BANKS
                                                                                                                                                                                                                                                                                                                                                                                FRASER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
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                                                                         Indels
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                                                                                                                                                                                                                                                                                                                                                                              М.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A.G.
                                                                                                                                                                                                                                                                                                                                                                              JR.,
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                                                                     Gaps
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RESULT
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Best Local
                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                               Matches
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089093;
089093;
01-NOV-1998;
01-NOV-1998;
01-NOV-1998;
CC CHEMOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TLT 8
000175
000175;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 043646
043646;
01-JUN-1998
01-JUN-1998
01-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENTZ R., GAROTTA G.;

J. EXP. MED. 0:0-0(0).

EMBL; U85768; G1916252; -.

PFAM; PF00048; il8; 1.

SEQUENCE 119 AA; 13119 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Structure of a region of 181 kb containing five CC (
SUBMITTED (AUG-1998) TO EMBL/GENBANK/DDBJ DATA BANKS
EMBL; AF043441; G2905632; -.
EMBL; AF048219; G3719366; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUBMITTED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. JANG J.S., KIM B.E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RANTES PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PATEL V.P., KREIDER B.L.,
NARDELLI B., PIPPALLA V.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NOMIYAMA H.;
                                                                                                                                                                                                                                                                                              71 QVCANPEKKWVR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     72 QFCGDPKQEWVQ :::|:|| | | | | |
     CHEMOKINE
                                                                                                                                                                                                                                         \mathbf{H}
                                                                                                                                                                                                                                         EICADPSQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EICADPSQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73.4%;
Similarity 58.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PS00472;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        91
3 (TREMBLREL. 08,
3 (TREMBLREL. 08,
3 (TREMBLREL. 08,
TE ST38 PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (TREMBLREL.)
(TREMBLREL.)
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                                                                                                                                                                                                                                                                                                                                                                                                                                          1
24
AA;
                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N.A.
                                                                                                                                                                                                                                                                                              82
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  23
91
9990 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SMALL_CYTOKINES_CC;
                                                                                                                                                                                                                                                                                                                                                                     72.3%;
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04,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL/GENBANK/DDBJ
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                        LAST SEQUENCE LAST ANN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 69;
Pred. No. 9
3; Mismat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                     Score 68; DB 4;
Pred. No. 1.60e-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                  RANTES.
CF404FAD CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         POTENTIAL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERTEBRATA;
                                                                                                                                    PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDF526F0 CRC32;
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                        SEQUENCE UPDATE)
ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                  Mismatches
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THOTAKURA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              119
                                                                                                                                    97
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .74e-03
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MAMMALIA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 119;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ж.;
                                                                                                                                                                                                                                                                                                                                                                                                 Length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 chemokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                 91;
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                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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D 00585; PRELIMINARY;
C 000585; PRELIMINARY;
C 000585;
DT 01-JUL-1997 (TREMBLREL. 04, CREATED)
DT 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DE BETA CHEMOKINE EXODUS-2.
OS HOMO SAPIENS (HUMAN).
OC EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
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 Query Match
Best Local S
Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
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VILLARES R.;
                                                     SEQUENCE FROM N.A.

NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA NAGIRA M., KAKIZAKI M., NOMIYAMA H., YOSHIE O.; SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; 088320; G2196920; -. EMBL; AF001979; G2624925; -. EMBL; AF001979; G2624925; -. EMBL; AF001879; B1022673; -. EMBL; AF001849; 118; 1.
                                                                                                                                                                                                       SEQUENCE FROM N.A.

MEDLINE; 97400322.

HEDRICK J.A., ZLOTNIK A.;

"Identification and characterization containing six conserved cysteines.";

J. IMMUNOL. 159:1589-1593(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CHAIN
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LARC.

MUS MUSCULUS (MOUSE).

EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;

EUKARYOTA; MOTIROGNATHI; MURIDAE; MURINAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUBMITTED (JUL-1998) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; AF053313; G3551819; -. EMBL; AJ007862; E1312757; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. UTANS-SCHNEITZ U.,
                                                                                                                                                            SEQUENCE FROM N.A. HEDRICK J.A., ZLOTNIK SUBMITTED (MAY-1997)
                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. HROMAS R.A., GRAY P., SUBMITTED (JUN-1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "A novel rat CC chemokine, id display, is upregulated in br J. NEUROIMMUNOL. 0:0-0(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ESSLAUER W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       74 VCADPKQNWV 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 ICADPSQKWV 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
7; Conser
           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97
                                              134 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1
28
7 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     72.3%;
ilarity 70.0%;
Conservative
72.3%;
larity 66.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27
97
10826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOREZ H.,
                                            1.
14646
                                                                                                                                                            ( A.;
TO EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                       KLEMSZ M., FIFE K.,
TO EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MW;
                                             MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             identified by targeted
brain inflammation.";
Score 68; DB 4; I
Pred. No. 1.60e-02;
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 68; DB 11;
Pred. No. 1.60e-02;
2; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 POTENTIAL.
CC CHEMOKINE ST38
053405BD CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KLINKERT W.E.F.,
                                                                                                                                                                                                                                                                                                                                                VERTEBRATA; MAMMALIA;
                                             FE86A239 CRC32;
                                                                                                                                                                                                                                of a
                                                                                                                                                                                                                                                                                       BROXMEYER
DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MAMMALIA;
MUS.
                                                                                                                                                             DATA
                                                                                                                                                                                                                                 novel beta chemokine
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                      Length 134;
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Best Local
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                                                                                                                                                                                                                                                                                                                                                   O09002 PRELIMINARY;
O09002;
O1-JUL-1997 (TREMBLREL 04
O1-JUL-1997 (TREMBLREL 04
O1-NOV-1998 (TREMBLREL, 08
SMALL INDUCIBLE CYTOKINE A
SCYA21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 062812
062812;
062812;
01-AUG-1998
01-AUG-1998
01-AUG-1998
                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
TISSUB-THYMUS;
TANABE S., LU Z., LUO Y., QUACKENBUSH E.J., BERMAN M.A.,
COLLINS-RACIE L.A., MI S., REILLY C., LO D., JACOBS K.A.,
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                     HEDRICK J.A., ZLOTNIK A.,
SUBMITTED (MAY-1997) TO SUBMITTED (MAY-1997) TO SUBMITTED (MAY-1997) TO SUBMITTED (MAY-1997) TO SUBMITTED (MAY-1997) G.Z.09189; -.
EMBL; AF001980; G.2624927; -.
EMBL; AF001987677; S.CYA21.
                                                                                                                                                                              "Identification and characterization of containing six conserved cysteines."; J. IMMUNOL. 159:1589-1593(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; AF062377; G3126973; -. NON_TER 97 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EQUUS CABALLUS (HORSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
PERISSODACTYLA; EQUIDAE; EQUUS.
                                                                                                                                                                                                                          MEDLINE;
                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                    MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                         MUS MUSCULUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FRANCHINI M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-BRONCHOALVEOLAR TISSUE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-AUG-1998 (TREMBLREL. 0
01-AUG-1998 (TREMBLREL. 0
INTERLEUKIN-8 (FRAGMENT).
                                                                                    SEQUENCE
                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                              HEDRICK J.A.,
                    73
                                                      Local Similarity
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            ELCANPEEGWVQ
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 EICADPSQKWVQ
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                                                                                  PF00048; il8;
NCE 133 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    h 71.3%;
Similarity 58.3%;
7; Conservative
                                                                                                                                                                                                                        97400322
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                                         70.2%;
llarity 58.3%;
Conservative
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                                                                                                                                                                                                              ZLOTNIK A.;
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                    84
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                                                                          14558 MW;
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Pred.
2; M
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
1 (TCA4).
                                        Score 66; DB 11;
Pred. No. 4.23e-02;
3; Mismatches 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             00396FBF CRC32
                                                                                   C0532523 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   e 67; DB 6; Lei
. No. 2.60e-02;
Mismatches 3;
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                                                                                                                                                                                                                                                                                                                              MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                             Length 133
                                                                                                                                                                                                   beta chemokine
                                        Indels
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                                                                                                                                                                                                                                                                                                                              EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97;
                                                                                                                                                                                                                                                                 DORF
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                                                                                                                                                                                                                                                                 M.E.,
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Best Local S
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009006 PRELIMINARY;
009006;
01-JUL-1997 (TREMBLREL 04, C
01-JUG-1998 (TREMBLREL 07, L
01-NOV-1998 (TREMBLREL 08, L
BETA CHEMOKINE EXODUS-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ULT 15
Q99664;
Q99664;
Q1-MAY-1997 (TREMBLREL. 0
01-MAY-1997 (TREMBLREL. 0
01-NOV-1998 (TREMBLREL. 0
                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
TISSUS-PANCREAS;
MEDLINE; 97275143.
HROMAS R., GRAY P.W., C
BELL G.I., TAKEDA J., A
                                                                                                                     PFAM; PF
SEQUENCE
                                                                                                                                                    SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS EMBL; U88322; G3109697; -.
MGD; MGI:1097677; SCYA21.
PFAM; PF00048; il8; 1.
SEQUENCE 133 AA; 14600 MW; B34A5E22 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE; 97444139.
HROMAS R., KIM C.H., KLEMSZ M., KRATHWOHL M., SCHNIZLEIN-BICK C., BROXMEYER H.E.;
SCHALION and characterization of Exodus-2, a with a unique 37-amino acid carboxyl-terminal J. IMMUNOL. 159:2554-2558(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                              HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                       CHEMOKINE EXODUS
                                                                                                                                                                                                                                                                                                                                                                           CATARRHINI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE-TOTAL FETUS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A
                                                                                                                                                                                                                                        KLEMSZ M.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HROMAS R.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
TISSUE-TOTAL FETUS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73
72
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VCANPKQTWV 81
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                                                                                                                   PF00048; il
                                     h 68.1%;
Similarity 60.0%;
6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  70.2%;
larity 58.3%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                           HOMINIDAE;
                                                                                                                                                        SMALL_CYTOKINES_CC;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14600 MW;
                                                                                                                   10691 MW;
                                                                                                                                                                                                                                                          CHANTRY
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LAST SEQUENCE UI
LAST ANNOTATION
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Pred. No. 4.23e-02;
3; Mismatches 2;
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                     Score 64; DB 4; Lei
Pred. No. 1.10e-01;
2; Mismatches 2;
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                                                                                                                                                                                                                                                                                                                                                                                                VERTEBRATA;
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                                                                                                                     1526B4C0
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                                                                                                                                                                                                                   exodus,
                                                                                                                                                                                                                                                        GORDON M.,
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                                                                                                                     CRC32;
                                                                                                                                                                                                                   a novel beta-chemokine.";
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                                                                                                                                                                                                                                                                                                                                                                                                  MAMMALIA;
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                                                                                                                                                                                                                                                          COOPER S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 extension.
                                                                          Length 95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FIFE K.,
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                                         Indels
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RESULT 16

ID 997884;
AC 997884;
AC P97884;
DT 01-MAY-1997 (TREMBLREL. 03
DT 01-MAY-1998 (TREMBLREL. 03
DT 01-MOY-1998 (TREMOUS. MOTORIALS; MOTORIALS;
RESULT
ID OC
AC OC
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Best Local Similarity
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O55038;
O1-JUN-1998 (TREMBLREL. 06, CARATED)
O1-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
O1-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
B LYMPHOCYTE CHEMOATTRACTANT BLC.
MUS MUSCULUS (MOUSE).
HOSSULUS (MOUSE).
CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
MUS MUSCULUS (MOUSE).
HOSSULUS (MOUSE).
HOSSULUS (MOUSE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE; 98146056.

GUNN M.D., NGO V.N., ANSEL K.M., EN WILLIAMS L.T.;

"A B-cell-homing chemokine made in Burkitt's lymphoma receptor-1.";
NATURE 391:799-803(1998).

EMBL; AF044196; G2911374; -.
O00626;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "A novel rat CC chemokine, identified by targeted differential uisplay, is upregulated in brain inflammation.";
J. NEUROIMMUNOL. 0:0-0(1998).
EMBL; U90447; G1899246; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
STRAIN-FISHER 344; TISSUE-BRAIN;
UTANS-SCHNEITZ U., LOREZ H., KLINKERT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
STRAIN-SPRAGUE-DAWLEY;
KELNER G.S., MACIEJENSKI-LENOIR D., LEE E.D., MAKI R.A.;
SUBMITTED (FEB-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CC CHEMOKINE EXODUS.
RATTUS NORVEGICUS (RAT).
EUKARYOTA; METAZOA; CHORDATA; VI
SCIUROGNATHI; MURIDAE; MURINAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; AF053312; G3551817; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN=C57BL/6J;
                                                                                                                                                                                                                                                 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73 VCADPKQIWV 82
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                                                                                                                                                                                                                    ICVNPRAKWLQ
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                                                                                                                                                                              ICADPSQKWVQ
                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  109 AA;
                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                              84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          68.1%;
70.0%;
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                                                                                                                                                                                                                                                                                                                                                          66.0%;
54.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11927 MW;
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                    Score 62; DB 11;
Pred. No. 2.84e-01;
2; Mismatches 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 64; DB 11;
Pred. No. 1.10e-01;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
E; RATTUS.
                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3FC09DD8 CRC32;
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                                 93
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                                                                                                                                                                                                                                                                                                                                                                                           Length 109;
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RESULT 19
ID 093238;
AC 093238;
DT 01-NOV-1998 (TREMBLREL 08, CREAT O1-NOV-1998 (TREMBLREL 08, LAST DT 01-NOV-1998 (TREMBLREL 08, LAST DT 01-NOV-1998 (TREMBLREL 08, LAST DE CC CHEMOKINE-1.
OS CYPRINUS CARPIO (COMMON CARP).
OC EUKARYOTA; METAZOA; CHORDATA; VEH CYPRINUS CARPIO (COMMON CARP).
CYPRINIDAE; CYPRININAE; CYPRINUS RN [1]
RP SEQUENCE FROM N.A.
RA FUJIKI K., NAKAO M., SHIN D., YAN FUJIKI K., NAKAO M., SHI
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ID 046178
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Best Local
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADÂMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.; "Homo sapiens Chromosome 16 BAC Clone CIT987SK A-15ZE5."; SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; U83171; G1931581; -.. EMBL; U8329; G2062425; -.. EMBL; AC004382; G3252820; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-JUL-1997 (TREMBLREL. 04, C
01-JUL-1997 (TREMBLREL. 08, I
01-NOV-1998 (TREMBLREL. 08, I
MACROPHAGE-DERIVED CHEMOKINE
MDC OR A-152E5.1.
                                                                                                                                                                                                                                                                        SUBMITTED (JAN-1998) TO EMBL/GENBANK/DDBJ DATA EMBL; AB010469; D1032417; -. SEQUENCE 101 AA; 11266 MW; 9CFBD540 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHANG M.S., MCNINCH J., ELIAS III C., MANTHEY C.L., (
MENG T., BOONE T., ANDREW D.P.;
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                FUJIKI K., NAKAO M., SHIN D., YANO T.; "CDNA cloning of a carp CC chemokine h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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                                                                                                                                     72 EFCSDPKLRWV 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        74 EICADPRVPWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DISKA R., CHANTRY D., I
NTOVANI A., GRAY P.W.;
EXP. MED. 185:0-0(0).
                                                                                          \vdash
                                                                                          EICADPSQKWV
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                                                                                                                                                                                                          Similarity
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25
93 AA;
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llarity 72.7%;
Conservative
PRELIMINARY;
                                                                                                                                                                                Conservative
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                                                                                                                                                                                                     54.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           RDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTERYGII; OSTARIOPHYSI; CYPRINIFORMES; CYPRINOIDEA; CYPRINUS.
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04, LAST SEQUENCE UPDATE)
08, LAST ANNOTATION UPDATE)
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                                                                                                                                                                             Score 61; DI
Pred. No. 4.1
3; Mismatch
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pred. No. 4.52e-01;
0; Mismatches
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MACROPHAGE-DERIVED CHEMOKINE
65EA63D2 CRC32;
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PRT;
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                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                  homologous to
552
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4.52e-01;
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                                                                                                                                                                                                                           Length 101;
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MEDLINE; 98119/>>
A GINGRAS D., GAGNON C.;
T "Molecular cloning and characterization of a rad of sea urchin sperm axonemes: involvement of the T of sea urchin sperm motility.";
T regulation of sperm motility.";
MOL. BIOL. CELL 9:513-552(1998).
EMBL; U73123; G2205895;
CROTENCE 552 AA; 62723 MW; 898CFCCC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local s
Matches
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Best Local Similarity

Matches 6; Conser
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O1-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE.)
O1-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE.)
O1-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE,
RADIAL SPOKEHEAD.
STRONOYLOCENTRADIUS (PURPLE SEA URCHIN).
STRONOYLOCENTRADIUS PURPURATUS (PURPLE SEA URCHINOIDEA; EUECHINOIDEA;
""VARYOTA; METAZOA; ECHINODERMATA; ECHINOZOA; ECHINOIDEA; EUECHINOIDEA;
""VARYOTA; METAZOA; STRONGYLOCENTROTIDAE; STRONGYLOCENTROTUS."
                                                        ULT 22
P78423 PRELIMINARY;
P78423; 000672;
O1-MAY-1997 (TREMBLREL 03
O1-MAY-1997 (TREMBLREL 03
O1-NOV-1998 (TREMBLREL 03
CX3C CHEMOXINE PRECURSOR.
A-152E5.2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          067634:
01-NOV-1996 (TREMBLREL. 0
01-NOV-1996 (TREMBLREL. 0
01-NOV-1998 (TREMBLREL. 0
ECO Q PROTEIN (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GALLID HERPESVIRUS TYPE 1.
VIRUSES; DSDNA VIRUSES, NO RNA STAGE;
ALPHAHERPESVIRINAE; VARICELLOVIRUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LT 21
Q67634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              with MDV.";
VIROLOGY 213:590-599(1995).
EMBL; U34966; G11854444; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Isolation and characterization of mapping to the BamHI-I2, BamHI-Q2, genome from lymphoblastoid cells t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN=GA;
MEDLINE; 96074534.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PENG Q., ZENG M., BHUIYAN Z.A., SHIRAZI Y.;
   EUKARYOTA; METAZOA;
                                  HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                            145 VCVDPEAPWVQ
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                                                                                                                                                                                                                                                                                                                                                                ICADPSQKWVQ
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ER 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
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50.0%;
CHORDATA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MW;
                                                                                                                                                CREATED)
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pred.
3; M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 59; DB 14;
Pred. No. 1.13e+00;
1; Mismatches 4
                                                                                                                    LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            887D04C3 CRC32
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   of Marek's disease virus
Q2, and BamHI-L fragments
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           re 61; DB 5; L
d. No. 4.52e-01;
Mismatches 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 UBUKATA E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             transformed
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 203
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NONOYAMA M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       e head printing in the
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of the MDV
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RESULT 24
ID 070460;
AC 070460;
DT 01-AUG-1998 (TREMBLREL. 0
DE 01-AUG-199
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 6; Conser
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Best Local S
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073912;
073912;
01-AUG-1998
01-AUG-1998
01-AUG-1998
K60 PROTEIN
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SIGNAL.
SIGNAL
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SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GALLUS GALLUS (CHICKEN).
EUKARYOTA; METAZOA; CHORDATA;
NEOGNATHAE; GALLIFORMES; PHAS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.

ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J.,

BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;

"Homo sapiens Chromosome 16 BAC clone CIT987SK-A-152E5.";

SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.

MEDITAR: 97177111.

BAZON J.F., BACON K.B., HARDIMAN G., WANG
GREAVES D.R., ZLOTNIK A., SCHALL T.J.;

"A new class of membrane-bound chemokine v
NATURE 385:640-644(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUBMITTED (AUG-1997) TO EMBL; Y14971; E1295103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. TISSUE-MACROPHAGE LIKE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; U91835; G1899259; -. EMBL; U84487; G1888523; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATARRHINI; HOMINIDAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                73 FCADPKEOWV
                                                                                                                                                                                                                                                                                                                                                                                                                     75 EVCLDPTAPWV 85
                                                                                                                                                                                                                                                                                                                                                              1 EICADPSQKWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 ICADPSQKWV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6,
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25
397
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      104 AA;
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larity 54.5%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   62.8%;
larity 60.0%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AA;
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104
11199
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397
42202
                                  CHORDATA; VERTEBRATA;
      MURINAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OMOH
                                                                                                                     97,7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97,
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PHASIANIDAE; PHAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MW;
                                                                                                                     CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 58; DB 13;
Pred. No. 1.78e+00;
2; Mismatches 3
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pred. No. 1.13e+00;
2; Mismatches 2
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CX3C CHEMOKINE.
; C8093D7D CRC32;
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K60 PROTEIN.
                                                                                                                                                                                                                                           PRT;
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      SOW
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PHASIANINAE; GALLUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             with
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                                  MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DATA
                                                                                                                        UPDATE)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 104;
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                                  EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 397;
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                                  RODENTIA;
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Matches
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Best Local
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MEDLINE; 98130629.
LEGLER D.F., LOETSCHER M., STUBER
BAGGIOLINI M., MOSER B.;
"B cell-attracting chemokine 1, a
lymphoid tissues, selectively atta
J. EXP. MED. 187:655-660(1998).
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SEQUENCE FROM N.A.
TISSUE-LYMPHOID;
NGO V.N., TANG H.L.
J. EXP. MED. 0:0-0(
                                                                                                   JLT 26
065737
065737;
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01-JUN-1998
01-NOV-1998
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043927
043927;
01-AUG-1998 (TREMBLREL. 07, CREATED)
01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
BETA-GALACTOSIDASE (EC 3.2.1.23) (LACTASE) (FRAGMENT).
CICER ARIETINUM (CHICKPEA) (GARBANZO).
                                                                                                                                                                                                                                                                                                                                                                         CHAIN
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAPOLITANO M., SPINETTI G., (
SUBMITTED (CCT-1997) TO EMBL,
EMBL; AJ002211; E1249325; -.
EMBL; AF044197; G3911376; -.
EMBL; AF029894; G3169814; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GUNN M.D., NGO V.N., ANSEL K.M., WILLIAMS L.T.;
"A B-cell-homing chemokine made Burkitt's lymphoma receptor-1.",
NATURE 391:799-803(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. MEDLINE; 98146056.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NGO V.N., TANG H.L., CYSTER J. J. EXP. MED. 0.0-0(1998). EMBL; AF059208; 63068765; -. SEQUENCE 108 AA; 11911 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                 SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73 QLCAPPDQPWVD ::!| | | | | | |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
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                                                                                                                                                                                                                                                                                        Similarity 45.5%, 5; Conservative
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23
109 /
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                                                                                                                            PRELIMINARY;
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109
12664
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50.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STUBER ROOS R.,
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pred. No. 1.78e+00;
2; Mismatches 4
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Pred. No. 1.78e+00;
3; Mismatches
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                                                                                                                            PRT;
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3 lymphocytes via
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                                                                                                                                                                                                                                                                                                                              Length 109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CYSTER J.G.,
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via BLR1/CXCR5.";
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Best Local S
Matches
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Best Local Similarity

Matches 5; Conser
                                                                                                          Q97013 PRELIMINARY;
Q97013;
01-FEB-1997 (TREMBLREL, 0:
01-FEB-1997 (TREMBLREL, 0:
01-NOV-1998 (TREMBLREL, 0:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         065736;
065736;
01-AUG-1998
01-NOV-1998
           SEQUENCE
MEDLINE;
GAO F., M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-AUG-1998 (TREMBLREL. 07, CREATED)
01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
BETA-GALACTOSIDASE (EC 3.2.1.23) (LACTASE).
CICER ARIETINUM (CHICKPEA) (GARBANZO).
CICER ARIETINUM (CHICKPEA) (GARBANZO).
EUKARYOTA; VIRIDIPLANTAE; CHAROPHYTA/EMBRYOPHYTA; EUHYLLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
EUDICOTYLEDONS; ROSIDAE; FABALES; FABACEAE; PAPILIONOIDEAE; CICER.
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SEQUENCE
                                                                                                                                                                                                                                                                                                                           STRAIN-CV. CASTELLANA; TISSUE-ETIOLATED EPICOTYLS;
ESTEBAN R., DOPICO B., LABRADOR E.;
SUBMITTED (SEP-1998) TO EMBL/GEMBANK/DDBJ DATA BANKS.
-!- CATALYTIC ACTIVITY: HYDROLYSIS OF TERMINAL, NON-REDUCING
GALACTOSE RESIDUES IN BETA-D-GALACTOSIDES.
-!- SIMILARITY: BELLONGS TO FAMILY 35 OF GLYCOSYL HYDROLASES.
EMBL; AJ005042; E1321550; -.
EMBL; BS01182; GLYCOSYL_HYDROL_F35; 1.
HYDROLASE; GLYCOSYL_HYDROL_F35; 1.
HYDROLASE; GLYCOSIDASE.
ACT_SITE 187 187 PROTON DONOR (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN-CV. CASTELLANA; TISSUE-ETIOLATED EPICOTYLS; ESTEBAN R., DOPICO B., LABRADOR E.; SUBMITTED (APR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS-I-CATALYTIC ACTIVITY: HYDROLYSIS OF TERMINAL, NON-I-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EUDICOTYLEDONS; [1]
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 KARLSSON
                                                                                       ENV
                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL;
                                                            HÜMAN IMMUNODEFICIENCY VIRUS TYPE 1 (HIV-1).
VIRUSES; RETROID VIRUSES; RETROVIRIDAE; LENT
                                                                                                   ENVELOPE
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                                                                                                                                                                                                                            689 CGQPTQKW
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                                                                                                                                                                                                               CADPSQKW
ICE FROM N.A.
E; 96190564.
, MORRISON S.G., CON G., SODROSKI J
                                                                                                GLYCOPROTEIN (FRAGMENT).
                                                                                                                                                                                                                                                                                                                 730 AA;
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         ROBERTSON D.L.,
                                                                                                              822
                                                                                                                                                                                                                                                                                                                 MW;
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 MORGADO
                                                                                                            LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDAT
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Pred.
3; M
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Pred.
3; M
                                                                                                                                      CREATED)
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D1C226FF CRC32;
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                                                                                                                                                                                                                                                           DB 10; Len
. 2.78e+00;
-hes 0;
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GALVAO-CASTRO B.,
                                                             LENTIVIRUS
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                                                                                                              UPDATE)
                                                                                                                                                                                                                                                                                       Length 730;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 307;
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                                                                                                                                                                                                                                                                 Indels
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           CRAIG
BRIESEN
                                                                                                                                                                                                                                                               0
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                                                                                                                                                                                                                                                               Gaps
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Η.,
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RESULT IN RESULT
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Best Local
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[5]
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
RUSSO J.J., BOHENZKY R.A., C
RUSSO J.J., PERUZZI D., EDE'
-1997) TO EME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE; 9709435...
MEDLINE; 9709435...
MOORE P.S., BASHOFF C., WELS:
"MOLEcular mimicry of human
"MOLECULAR MIMIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VMIP-IB.

VMIP-IB.

VMIP-IB.

VMIP-IB.

VIP-IB.

KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS:

AND KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS:

VIRUSES; DSDNA VIRUSES; NO RNA STAGE; HERPES

VIRUSES; NO RNA STAGE; HERPES

THADINOVIRUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7LT 29
Q98157
Q98157;
Q98157;
01-FEB-1997
01-FEB-1997
01-NOV-1998
MEDLINE: 97296220.

NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B.;

"Cell-homologous genes in the Kaposi's sarcoma-associated human herpesvirus 8: determinants of its pathogenicity?";

J. VIROL. 71:4187-4192(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE; 971
RUSSO J.J.,
PARRY J.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.

NICHOLAS J., RUVOLO V.R., BURNS W.H., SANDFORD G., WAN
HENDRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;
SUBMITTED (SEP-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBMITTED (MAY-1995)
EMBL; U27443; G14959
                                                                                                                                                          SEQUENCE FROM N.A. MEDLINE; 97296220.
                                                                                                                                                                                                                                                                                                                                                                                                                             RUSSO J.J.,
PARRY J.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. MEDLINE; 97094384.
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NON_TER 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
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SUN R., LIN S.-F., MILLER G.
SUNMITTED (SEP-1996) TO EMBL
EMBL; U67775; G1562496; -.
EMBL; U75698; G1718264; -.
EMBL; U73872; G2246517; -.
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HYPOTHETICAL PROTEIN.
SEQUENCE 94 AA; 10486 MW;
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ACT_SITE
SEQUENCE
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EUKARYOTA; VIRIDIPLANTAE; CHAROPHYTA/EMBRYOPHYTA GROUP; EMBRYOPHYTA;

TRACHEOPHYTA; EUPHYLLOPHYTES; SPERMATOPHYTA; MAGNOLLOPHYTA;

EUDICOTYLEDONS; ASTERIDAE; SOLANANAE; SOLANALES; SOLANACEAE; SOLANUM.
                                                                                                                                                                                                                                                                                                                                                                                PLANT PHYSIOL. 117:417-423(1998).
-!- CATALYTIC ACTIVITY: HYDROLYSIS OF TERMINAL, NON-REDUCING GALACTOSE RESIDUES IN BETA-D-GALACTOSIDES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SMITH D.L., STARRETT D.A., GROSS K.C.;
"A gene coding for tomato fruit beta-galactosidase II during fruit ripening. Cloning, characterization, and
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LD78 L19236×Glu. LD78 L19236×Glu. LD78 11e24×Asn. LD78 11e40×Arg. LD78 11e40×Arg. LD78 Arg17×Ser, Gln18 LD78 Ser68×Glu. LD78 Asn22×Ser. LD78 Cys10, Cys11 > C Ala-Ser1×Pro LD78. Macrophage inflammato Macrophage inflatiory Human MIP 1-alpha. Ser-Ala-LD78. Leu-Ser-Ala-Ser1>Pro LD78 Arg17>Glu, (Gln, Leu-Ser-Ala-Ser1>Pro	ysylven	8 Val39>Ala. 8 Thr6>Ala. 8 Thr6>Ala. 8 Ser31>Glu. 8 Ser31>Glu. 8 Ala25>Ser. 8 Thr15>Ala. 8 Thr15>Ala. 8 Gly38>Ala. 8 I1624>Ala. 8 Lr945>Glu. 8 Leu65>Ala.	Ala Glu Pro Ile Tyr Ser Asp		LD78 Serla-Ala.  LD78 Serl3-Ala.  LD78 Gln18-Ser.  LD78 Tyr60-Asp.  LD78 Tyr61-Asp.  LD78 Glu29-Arg.  LD78 Phe28-Ala.	8 Leu 8 Ala 8 Ala 8 Asp 8 Asp 8 Ser 8 Ser 8 Ser 777
1.51e-01 1.51e-01 1.51e-01 1.51e-01 1.51e-01 1.51e-01 1.51e-01 1.51e-01 1.51e-01 1.51e-01 1.51e-01 1.51e-01 1.51e-01 1.51e-01 1.51e-01 1.51e-01 1.51e-01 1.51e-01 1.51e-01	51e 51e 51e 51e 51e 51e	51e 51e 51e 51e 51e 51e 51e	216.216.216.2	51e 51e 51e 51e 51e 51e 51e 651e 651e 65	51e 51e 51e 51e	555555555555555555555555555555555555555

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Best Local S
Matches 1
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LD78 Gln46>Glu.
SCI; stem cell inhibition; LD78; Ac
macrophage inflammatory protein; mu
psoriasis; hyperproliferation.
Homo sapiens.
WO9313206-A.
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08-JUL-1993.
23-DEC-1992; GB-027319.
23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          providing better tissue penetration

Example 15; Page 55; 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-
lalpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
utility as stem cell protective agents. The analogues may be used
in tumour therapy, psoriasis or other diseases involving hyper-
proliferative stem cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha analogues correspond to the pref. LD78 analogues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LD78 Phe28>Glu, Gln48>Glu.

SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha; SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha; macrophage inflammatory protein; multimer; tumour therapy; psoriasis; hyperproliferation.

Homo sapiens.

W09313206-A.
                               08-JUL-1993.
23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S, Czaplewski LG, Edwards RM,
                                                                                                                                                                                                                                                                                                                                                                                                                                        R38926 standard;
R38926;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Protein with stem cell inhibition activity, e.g. LD78 alpha - unable to form stable multimer higher than doc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R38940 standard; Protein; R38940;
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LD78 Phe28>Glu, Gln48>Glu.
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nes 11; Conser
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91.7%;
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R62618
R36769
R04221
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R11553
R14915
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Pred. No.
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                                                                                                                                                                                                                                                                                                           ACT2; MIP-lalpha;
multimer; tumour therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gilbert RJ;
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Stem cell inhibitor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human MIP-1 alpha Varient stem cell MIP-1alpha.
                                      Gilbert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Varient stem cell inh
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7.7 4
R39081 standard; Protein; 64
R39081;
23-NOV-1993 (first entry)
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providing better tissue penetration

Example 1; Page 48-50; 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-

Canalogues, having mutations to prevent or reduce multimer formation

beyond certain stages (e.g. dodecamer), have improved solution

properties leading to enhanced productivity and greater therapeutic

cutility as stem cell protective agents. The analogues may be used

in tumour therapy, psoriasis or other diseases involving hyper-

proliferative stem cells.

Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with

Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha

analogues correspond to the pref. LD78 analogues.
                                                                                   Query Match
Best Local S
Matches 1
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Best Local S
Matches 1
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Example 49; Page 68; 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-
lalpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
utility as stem cell protective agents. The analogues may be used
in tumour therapy, psoriasis or other diseases involving hyper-
proliferative stem cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                macrophage inflammatory protein; multimer; tumour therapy; psoriasis; hyperproliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hunter MG;
WPI; 93-227322/28.
Protein with stem cell inhibition activity, e.g. LD78 or M1P-1 alpha - unable to form stable multimer higher than dodecamer,
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23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
23-DEC-1991; GB-027519.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
(Craig S, Czaplewski LG, Edwards RM,
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                                                                                                                                                                                           analogues
                                                                                                                                                                                                                    Gln18>Glu) and, esp.,
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                                                                                                                                                                        Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     48 evcadpseewvq
H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 EICADPSEEWVQ
                       qvcadpseewvq
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                                                                                                                                                                                                                  pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with
8>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha
EICADPSEEWVQ
                                                                                   Similarity
10; Conser
                                                                                                                                                                          correspond 63 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97.8%;
llarity 91.7%;
Conservative
                                                                                   Conservative
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12
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                                                                                                                                                                                             the pref. LD78
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                                                                                Score 87; DB 7; I
Pred. No. 1.51e-01;
2; Mismatches (
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d. No. 7.79e-02;
Mismatches 0;
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                                                                                                                          Length 63;
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LD78 C65-69

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08-JUL-1993.

23-DEC-1992; GB-027319.

23-DEC-1991; GB-021587.

14-OCT-1992; GB-021587.

(BRBI-) BRITISH BIO-TECHNOLOGY LTD.

(BRBI-) BRITISH LG, Edwards RM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       providing better tissue penetration

Example 59; Page 71; 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-
lalpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
utility as stem cell protective agents. The analogues may be used
in tumour therapy, psoriasis or other diseases involving hyper-
proliferative stem cells.

Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with
Cln18Clu), and conservations are Phel2>Gln, Lys44>Ser, Arg17>Glu (with
Cln18Clu), and conservations are Phel2>Gln, Lys44>Ser, Arg17>Glu (with
                                                                      lalpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution properties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used in tumour therapy, psociasis or other diseases involving hyper-
                                                                                                                                                                                                                                                                                                                                                                            macrophage inflammatory protein;
psoriasis; hyperproliferation.
Homo sapiens.
                                                                                                                                                    providing better tissue penetration
Example 23; Page 58; 294pp; English.
Analogues of natural stem cell inhibitors, such as LD78 and MIP-
                                                                                                                                                                                                    Protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gln18>Glu) and, esp., Asp26> analogues correspond to the
Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Prej analogues correspond to the pref. LD78 analogues. Sequence 66 AA;
                                                          in tumour therapy, psoriasis proliferative stem cells.
                                                                                                                                                                                                                                                                    Craig S,
                                                                                                                                                                                                                                                                                              23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
                                                                                                                                                                                                                                                                                                                                                                                                                          SCI; stem cell inhibition; LD78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        R38948;
23-NOV-1993 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R38948 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Protein with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 93-227322/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hunter MG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SCI; stem cell inhibition; LD78; macrophage inflammatory protein; psoriasis; hyperproliferation.
                                                                                                                                                                                                                                                                                  (BRBI-) BRITISH BIO-TECHNOLOGY LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 EICADPSEEWVQ
                                                                                                                                                                                                                                     93-227322/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qvcadpseewvq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    in with stem cell inhibition activity, e.g. LD78 or MIP-1 . unable to form stable multimer higher than dodecamer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                  Czaplewski LG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 64 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Protein; 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Asp26>Ala and
                                                                                                                                                                                                                                                                    Edwards RM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             pref. LD78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A
                                                                                                                                                                                                                                                                                                                                                                                                          ACT2; MIP-lalpha;
multimer; tumour therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACT2; MIP-lalpha;
multimer; tumour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  87;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Glu66>Ser.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    _
                                                                                                                                                                                                                                                                  Gilbert RJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gilbert RJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 7;
1.51e-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               analogues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tumour therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö.,.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                           Pref.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pref. MIP-lalpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                             Arg17>Glu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Arg17>Glu (with
                             MIP-lalpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       therapeutic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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   HD ACC DOTON TO THE PROPERTY OF THE PROPERTY O
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Matches
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-DEC-1992; (23-DEC-1991; (14-OCT-1992; (14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          providing better tissue penetration

Example 26; Page 59; 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-
lalpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
utility as stem cell protective agents. The analogues may be used
in tumour therapy, psoriasis or other diseases involving hyper-
proliferative stem cells.
                                                                                                 Hunter MG;
WPI; 93-227322/28
                                                                                                                                                                14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S, Czaplewski LG, Edwards RM,
                                                                                                                                                                                                                                  08-JUL-1993.
23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SCI; stem cell inhibition; LD78;
macrophage inflammatory protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Most pref. LD78 analogues are Phe12>Gln, Lys44>: Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. analogues correspond to the pref. LD78 analogues Sequence 66 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (BRBI-) BRITISH BIO-TECHNOLOGY LTD. Craig S, Czaplewski LG, Edwards I Hunter MG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    macrophage inflammatory
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                                  Protein with alpha - unab
                                                                                                                                                                                                                                                                                                                                                                                                          Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                      psoriasis; hyperproliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R38934;
23-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R38934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Protein with stem cell inhibition activity, e.g. \mathtt{LD78} alpha - unable to form stable multimer higher than doc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 93-227322/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
W09313206-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             psoriasis; hyperproliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R38951;
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providing better tissue penetration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-NOV-1993
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::|||||||||
1 EICADPSEEWVQ
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                                                                                                                                                                                                                                                                                                                                                                                                          sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard;
                               with stem cell inhibition activunable to form stable multimer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              h 94.6%;
Similarity 83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Protein;
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                           cell inhibition activity, e.g. Li form stable multimer higher than
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             69
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Pred. No. 1.51e-01;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 87; DB 7;
Pred. No. 1.51e-01
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       pref. LD78 analogues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     multimer; tumour therapy;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACT2; MIP-lalpha;
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                                                                                                                                                                       Gilbert
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 66;
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Best Local S
Matches 1
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W09313206-A.

08-JUL-1993.
23-DEC-1992; G02390.
23-DEC-1992; GB-027319.

R 14-OCT-1992; GB-021587.
A (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
Czaplewski LG, Edwards RM, G
                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                R39089;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              providing better tissue penetration

Example 82: Page 79: 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-
lalpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
utility as stem cell protective agents. The analogues may be used
in tumour therapy, psoriasis or other diseases involving hyper-
proliferative stem cells.

Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with
Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha
analogues correspond to the pref. LD78 analogues.

Sequence 69 AA;
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Analogues of natural stem cell inhibitors, such as LD78 and MIP-
lalpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
utility as stem cell protective agents. The analogues may be used
in tumour therapy, psoriasis or other diseases involving hyper-
proliferative stem cells.
LD78 Gln33>Ser. SCI; stem cell inhibition; LD78; macrophage inflammatory protein; psoriasis; hyperproliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LD78 Pro37>Ala.

SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha; BCI; stem cell inhibition; LD78; ACT2; MIP-lalpha; macrophage inflammatory protein; multimer; tumour therapy; psoriasis; hyperproliferation.
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WPI; 93-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Protein with stem cell inhibition activity, e.g. LD78 or M1P-1 alpha - unable to form stable multimer higher than dodecamer,
                                                                                                                  23-NOV-1993 (first entry)
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Pred. No. 1.51e-01;
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                                ACT2; MIP-lalpha; multimer; tumour
                                                                                                                                                                                                                                                                                                                                                                                                                               87; [
No. 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 7;
1.51e-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gilbert
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Example 67; Page 74; 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-1 alpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution componenties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used in tumour therapy, psoriasis or other diseases involving hyper-1 compositive stem cells.

Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with calls) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha canalogues correspond to the pref. LD78 analogues.
                                                                                                     Providing better tissue penetration
Strample 69; Page 75; 294pp; English.
Analogues of natural stem cell inhibitors, such as LD78 and MIP-
Clalpha, having mutations to prevent or reduce multimer formation
Deyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
Cutility as stem cell protective agents. The analogues may be used
in tumour therapy, psoriasis or other diseases involving hyper-
Clar proliferative stem cells.
Wost pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with
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Clarative stem cel
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Best Local Similarity 83.3%;
Matches 10; Conservative
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23-DEC-1992; GB-027319.
23-DEC-1991; GB-027319.
14-CCT-1992; GB-021587.
14BBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S, Czaplewski LG, Edwards RM, (Hunter MG;
WPI; 93-227322/28.
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R39091 standard; Protein;
R39091;
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23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S, Czaplewski LG, Edwards R
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SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha; macrophage inflammatory protein; multimer; tumour therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Protein with stem cell inhibition activity, e.g. LD78 or MIP-alpha - unable to form stable multimer higher than dodecamer,
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Homo sapiens.
W09313206-A.
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Pred. No. 1.
2; Mismatc
Score 87; DB 7; 1
Pred. No. 1.51e-01;
2; Mismatches (
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1.51e-01;
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Example 57; Bage 70-71; 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-1 alpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution properties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used in tumour therapy, psoriasis or other diseases involving hyper-1 proficative stem cells.

Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha analogues correspond to the pref. LD78 analogues.
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23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S. Czaplewski LG, Edwards RM, G
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23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S. Czaplewski LG, Edwards RM,
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Sequence
providing better tissue penetration
Example 54; Page 69-70; 294pp; English.
Analogues of natural stem cell inhibitors, such as LD78 and MIP-
lalpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
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Protein with stem cell inhibition activity, e. alpha - unable to form stable multimer higher
                                                                                                                                                                                                                                                                                                                                         Hunter MG;
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LD78 Arg45>Ser.
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Similarity 83.38;
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multimer; tumour therapy;
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multimer; tumour
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1.51e-01;
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an dodecamer,
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RESULT
ID R3
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AC DT 23
DT L1
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                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 1
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Best Local :
                                                   LD78 Ala4>Ser.
SCI; stem cell inhibition; LD78;
macrophage inflammatory protein;
psoriasis; hyperproliferation.
                                                                                                                                                                                                                                                                                                                   lalpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution properties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used in tumour therapy, psoriasis or other diseases involving hyper-proliferative stem cells.

Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha analogues correspond to the pref. LD78 analogues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    in tumour therapy, psoriasis or other diseases involproliferative stem cells.
Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Prefanalogues correspond to the pref. LD78 analogues.
Sequence 69 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               providing better tissue penetration
Example 46; Page 67; 294pp; English.
Analogues of natural stem cell inhibitors, such as LD78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha; macrophage inflammatory protein; multimer; tumour therapy; psorlasis; hyperproliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R38971 standard; Protein;
R38971;
23-NOV-1993 (first entry)
                           Homo sapiens. WO9313206-A.
                                                                                                                               R38972 standard;
R38972;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
33-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
                  08-JUL-1993
                                                                                                               23-NOV-1993 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Protein with stem cell inhibition activity, e.g. LD78 or MIP-
alpha - unable to form stable multimer higher than dodecamer.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hunter MG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Craig S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO9313206-A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            properties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used
 23-DEC-1992; G02390
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                                                                                                                                              Protein;
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Pred. No.
2; Misma
                                                                                                                                                                                                                                                            Score 87; DB 7; I
Pred. No. 1.51e-01;
2; Mismatches (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ive agents. The an or other diseases
                                                                       ACT2; MIP-lalpha; multimer; tumour
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gilbert
                                                                       tumour therapy;
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                                                                                                                                                                                                                                                                                       Length 69;
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Most prof. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg1>Glu (with Gln18>Gln19>Glu (agenta and Gln66>Ser Porf MIP-1alpha Gln18>Gln19>Gln (agenta and Gln66>Ser Porf MIP-1alpha Gln18>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln19>Gln
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Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with Gln18>Glu) and, esp., Asp26>Ala and Glu65>Ser. Pref. MIP-lalpha analogues correspond to the pref. LD78 analogues.
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R38978;
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14-0CT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S, Czaplewski LG, Edwards RM,
                                                                                                                                                                                                                                                                                                                                                      Most pref. LD78 analog Gln18>Glu) and, esp.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hunter MG;
WPI; 93-227322/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
23-DEC-1991; GB-021587.
14-0CT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
(Craig S, Czaplewski LG, Edwards F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LD78 Lys44>Ser.
SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha;
macrophage inflammatory protein; multimer; tumour therapy;
psorlasis; hyperproliferation.
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Example 47; Page 67; 294pp; English.
Analogues of natural stem cell inhibitors, such as LD78
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens. W09313206-A.
                                                                                                                                                                                                                                                                                                                  analogues
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23-NOV-1993 (first entry)
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   EICADPSEEWVQ
                                                                     qvcadpseewvq 59
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                                                                                                                                                                                                                                                                              correspond to 69 AA;
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                                                                                                                                                                       94.6%;
                                                                                                                                                                                                                                                                                                           Asp26>Ala and
to the pref. LI
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2; M
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Pred. No. 1.51e-01
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                                                                                                                                                                                                                                                                                            and Glu66>Ser. Prof
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                                                                                                                                                                       87; DB 7; 1
No. 1.51e-01
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Example 52; Page 69; 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-1 alpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution properties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used in tumour therapy, psoriasis or other diseases involving hyperupiliterative stem cells.

Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with CallsSclu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha analogues correspond to the pref. LD78 analogues.
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Best Local
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08-JUL-1993.
23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
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R38977
R38977;
                             providing better tissue penetration

Example 36; Page 63; 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-
lalpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
utility as stem cell protective agents. The analogues may be used
in tumour therapy, psoriasis or other diseases involving hyper-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SCI; stem cell inhibition; LD78; macrophage inflammatory protein; psorlasis; hyperproliferation. Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                              Protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-DEC-1992; G9C390.
23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R38961;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R38961 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             analogues correspond to Sequence 69 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9313206-A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha; macrophage inflammatory protein; multimer; tumour therapy;
in tumour therapy, proliferative stem
                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 93-227322/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                craig s,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LD78 Asp5>Arg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 93-227322/28.
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1 EICADPSEEWVQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              h 94.6%;
Similarity 83.3%;
10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Czaplewski iG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   59
psoriasis or cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 87; D
Pred. No. 1.
2; Mismatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACT2; MIP-lalpha;
multimer; tumour therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB /;
1.51e-01;
1.52e-01;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gilbert RJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gilbert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 69
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                                                                                                                therapeutic
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                                                                                                                                                                                                                                                                                                                                  Protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer, alpha - unable to form stable multimer higher than dodecamer, providing better tissue penetration

Example 42; Page 65; 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-1 alpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution properties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used in tumour therapy, psoriasis or other diseases involving hyper-

C proliferative stem cells.

Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with analogues correspond to the pref. LD78 analogues correspond to the pref. LD78 analogues.
                                                                                                                                                                                                                                                                                     Best Loc
Matches
                                                                                                                                                                                                                                                                                                             Query Match
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             Homo sapiens.

W0931326-A.

08-JUL-1993.

23-DEC-1992; G02390.

23-DEC-1991; GB-027319.

23-DEC-1991; GB-021587.

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08-JUL-1993.
23-DEC-1992; GB-027319.
23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
14-OCT-1992; GB-021587.
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                                                                                                   LD78 Leu67>Glu
SCI; stem cell inhibition; LD78;
macrophage inflammatory protein;
psoriasis; hyperproliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LD78 Arg17>Glu, Gln18>Glu.
SCI; stem cell inhibition; LD78;
macrophage inflammatory protein;
psoriasis; hyperproliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha analogues correspond to the pref. LD78 analogues. Sequence 69 AA;
                                                                                                                                                         R38968;
23-NOV-1993
                                                                                                                                                                               R38968 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
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23-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hunter MG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R38967 standard; Protein; 69
                                                                                                                                                                                                                                               48 qvcadpseewvq 59 ::|||||||||
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           / Match 94.6%;
Local Similarity 83.3%;
ses 10; Conservative
                                                                                                                                                                                                                                                                                                  Local
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                                                                                                                                                                                                                                                                                   Similarity
10; Conser
 Czapiewski LG,
                                                                                                                                                     (first entry)
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                                                                                                                                                                                                                                                                                     Conservative
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                                                                                                                                                                                 Protein; 69
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                                                                                                                                                                                                                                                                                                 94.68;
  Edwards
                                                                                                                                                                                                                                                                                   Pred.
2; 1
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Pred.
2; M
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multimer;
                                                                                                               ACT2; MIP-lalpha;
multimer; tumour therapy;
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                                                                                                                                                                                                                                                                                               DB 7; I
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1.51e-01;
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MIP-lalpha;
mer; tumour therapy;
  Gilbert
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Example 43; Page 65-66; 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-

C lalpha, having mutations to prevent or reduce multimer formation

beyond certain stages (e.g. dodecamer), have improved solution

properties leading to enhanced productivity and greater therapeutic

c utility as stem cell protective agents. The analogues may be used

in tumour therapy, psoriasis or other diseases involving hyper-

proliferative stem cells.

Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with

Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha

c analogues correspond to the pref. LD78 analogues.
                                                                                                    Query Match
Best Local S
Matches 1
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Best Local S
Matches 1
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23-DEC-1992;
23-DEC-1991;
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WPI; 93-22
                                                                                                                                                                                                           lalpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution properties leading to enhanced productivity and greater therapeut utility as stem cell protective agents. The analogues may be use in tumour therapy, psoriasis or other diseases involving hyper-proliferative stem cells.

Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (wi Gin18>Glu) and, esp., Asp26>Ala and Glu65>Ser. Pref. MIP-lalpha analogues correspond to the pref. LD78 analogues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SCI; stem cell inhibition; LD78; macrophage inflammatory protein; psoriasis; hyperproliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R38975 standard; Protein;
R38975;
23-NOV-1993 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 providing better tissue penetration
Example 50; Page 68; 294pp; English.
Analogues of natural stem cell inhibitors,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hunter MG;
WPI; 93-227322/28.
Protein with stem cell inhibition active alpha - unable to form stable multimer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Craig S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Protein with stem cell inhibition activity, e.g. LD78 or MlP-1 alpha - unable to form stable multimer higher than dodecamer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
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Craig S, Czaplewski LG, Edwards R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO9313206-A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LD78 Phe28>Tyr.
                                                  48
                                                                                                                                Local Similarity
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                                                  qvcadpseewvq
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  EICADPSEEWVQ
                                                                                                         10;
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                                                                                                         Conservative
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                                            59
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                                                                                                                             94.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                94.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               inhibition activity, e.g. LD78 or MlP-stable multimer higher than dodecamer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         69
                                                                                                                             Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score
Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACT2; MIP-lalpha;
multimer; tumour therapy;
                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                87;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                87;
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                                                                                                                             DB 7; L
1.51e-01;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 7; L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gilbert RJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    such as LD78 and MIP-
                                                                                                                                                      Length 69;
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may be used
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T 21 R38973 standard; R38973;

Protein;

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08-7UL-1993.

23-DEC-1992; GB-02390.

23-DEC-1991; GB-027319.

14-OCT-1992; GB-021587.

14-OCT-1992; GB-021587.

(BRBI-) BRITISH BIO-TECHNOLOGY LTD.

(BRBI-) BRITISH LG, Edwards RM,
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Example 48; Page 67; 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-
lalpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
utility as stem cell protective agents. The analogues may be used
in tumour therapy, psoriasis or other diseases involving hyper-
proliferative stem cells.

Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with
Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha
analogues correspond to the pref. LD78 analogues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hunter MG;
WPT; 93-227322/28.
WPT; 93-227322/28.
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with stem cell inhibition activity, e.g. LD78 or M1P-
Protein with 
                                                                                                                                                                                     Protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer, providing better tissue penetration

Example 40: Page 64-65; 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-1 alpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution properties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used in tumour therapy, psoriasis or other diseases involving hyper-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LD78 Ala3>Glu.

LD78 Ala3>Glu.

SCT: stem cell inhibition; LD78; ACT2; MIP-lalpha;
macrophage inflammatory protein; multimer; tumour therapy;
psoriasis; hyperproliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
23-DEC-1991; GB-027319.
14-0CT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S. Czaplewski LG, Edwards RM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LD78 Leu67>Ala. SCI; stem cell inhibition; LD78; macrophage inflammatory protein; psoriasis; hyperproliferation. Homo sagiens.
                                                                                                                      in tumour therapy, psoriasis or proliferative stem cells.
Most pref. LD78 analogues are Pl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JT 22
R38965 standard; Protein; 69
                                      Gln18>Glu) and, esp., Asp26>Ala and analogues correspond to the pref. LD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hunter MG;
WPI; 93-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R38965;
23-NOV-1993 (first entry)
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WO9313206-A.
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08-JUL-1993.
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les 10; Conse
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                                                                   pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Arg17>Glu (with
8>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qvcadpseewvq
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larity 83.3%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              59
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Pred. No. 1.51e-01;
2; Mismatches 0
                                 pref. LD78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ₿
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACT2; MIP-lalpha;
                                      analogues
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gilbert RJ
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R38964;
R38964;
23-NOV-1993
                                                    23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S, Czaplewski LG, Edwards RM,
                                                                                                                                                                                                                                                   LT 24
R38953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     lalpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution properties leading to enhanced productivity and greater therapeuticutility as stem cell protective agents. The analogues may be used in tumour therapy, psoriasis or other diseases involving hyperproliferative stem cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer, providing better tissue penetration Example 39; Page 64; 294pp; English.
Analogues of natural stem cell inhibitors, such as LD78 and MI analogues of natural stem cell inhibitors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S. Czaplewski LG, Edwards RM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LD78 Leu2>Glu. SCI; stem cell inhibition; LD78; macrophage inflammatory protein;
WPI; 93-227322/28.

Protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer,
                                                                                                                                                                   macrophage inflammatory protein;
psoriasis; hyperproliferation.
                                                                                                                                                                                            LD78 Asp26>Ser. SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha;
                                                                                                                                                                                                                                                                                                                                                                                                                             Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Preanalogues correspond to the pref. LD78 analogues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               psoriasis;
                                                                                                                                         Homo sapiens. W09313206-A.
                                                                                                                                                                                                                        R38953;
23-NOV-1993 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hunter MG;
WPI; 93-227322/28.
                                          Hunter MG;
                                                                                                                                                                                                                                                                                                                                                                                                                   analogues correspond to 
Sequence 69 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
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Pred. No. 1.51e-01
2; Mismatches
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Pred. No. 1.51e-01
                                                                                                                                                                                                                                                    B
                                                                                                                                                                                multimer; tumour therapy;
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multimer; tumour therapy;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               greater therapeutic
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Best Local Similarity
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Example 28; Page 60; 294pp; English.
Analogues of natural stem cell inhibitors, such as LD78 and MIP-
lalpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
utility as stem cell protective agents. The analogues may be used
in tumour therapy, psoriasis or other diseases involving hyper-
proliferative stem cells.
Most pref. LD78 analogues are Phell>Gln 1854-Ser. Arg17-Glu (with
Gln18-Glu) and, esp., Asp26-Ala and Glu66-Ser. Pref. MIP-lalpha
analogues correspond to the pref. LD78 analogues.
                                                             R38969;
R38969;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        W09313266-A.
08-JUL-1993.
23-DEC-1992; G02390.
23-DEC-1992; GB-027319.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   macrophage inflammatory protein; multimer; tumour therapy; psoriasis; hyperproliferation.

Homo sapiens
23-NOV-1993 (first entry)
LD78 Ser46>Ala.
SCI; stem cell inhibition; LD78;
macrophage inflammatory protein;
                                                                                                                                                                                                                                                                   Most pref. LD78 analogues are Phe12>Gln, Lys44>Ser, Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Presanalogues correspond to the pref. LD78 analogues.
                                                                                                                                                                                                                                                                                                                                          providing better tissue penetration
Example 45; Page 66; 294pp; English.
Analogues of natural stem cell inhibitors, such as LD78 and MIP-
lalpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
utility as stem cell protective agents. The analogues may be used
                                                                                                                                                                                                                                                                                                                                                                                                                                              Protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha unable to form stable multimer higher than dodecamer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hunter MG;
WPI; 93-227322/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LD78 Leu2>Ala. SCI; stem cell inhibition; LD78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R38970 standard; Protein; R38970;
                                                                                                                                                                                                                                                                                                                 in tumour therapy, psoriasis or other diseases involving proliferative stem cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Craig S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-NOV-1993
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::|||||||||
1 EICADPSEEWVQ 12
                                                                                                                                                                  48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity 83.3% es 10; Conservative
                                                                                                                                    1 EICADPSEEWVQ 12
                                                                                                                                                     qvcadpseewvq
::||||||||||
                                                                           standard;
                                                                                                                                                                                             10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Czaplewski LG,
                                                                                                                                                                                                                                                        69 AA;
                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A,
                                                                           Protein;
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                                                                                                                                                                                                           94.68;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       69
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Edwards RM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 87;
Pred. No.
2; Misma
                                                                                                                                                                                                           Score 87; I
Pred. No. 1.
                                                                           A
A
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   multimer;
                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                ACT2; MIP-lalpha;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB /,
1.51e-01;
1.51e-01;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gilbert RJ;
                                                                                                                                                                                                           DB 7; L
1.51e-01;
tumour therapy;
                                                                                                                                                                                                                        Length 69;
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                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                    Pref. MIP-lalpha
                                                                                                                                                                                                                                                                                                Arg17>Glu (with
                                                                                                                                                                                                                                                                                                                             hyper-
                                                                                                                                                                                             0
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HE SEED OF THE PROPERTY OF THE
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Best Local
                                  Query Match 94.6%;
Best Local Similarity 83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
        Matches
                                                                                                                                                                                                                      providing better tissue penetration
Example 51; Page 68-69; 294pp; English.
Analogues of natural stem cell inhibitors, such as LD78 and MIP-
lalpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
utility as stem cell protective agents. The analogues may be used
in tumour therapy, psoriasis or other diseases involving hyper-
proliferative stem cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     providing better tissue penetration

Example 44; Page 66; 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-
lalpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
utility as stem cell protective agents. The analogues may be used
in tumour therapy, psoriasis or other diseases involving hyper-
proliferative stem cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LD78 Asp5>Ser.
SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha;
SCI; otem cell inhibition; LD78; ACT2; MIP-lalpha;
macrophage inflammatory protein; multimer; tumour therapy;
psoriasis; hyperproliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nost pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha analogues correspond to the pref. LD78 analogues. Sequence 69 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-JUL-1993.
23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
                                                                                                                                           Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha analogues correspond to the pref. LD78 analogues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            wPI; 93-227322/28.
Protein with stem cell inhibition activity, e
alpha - unable to form stable multimer higher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23-DEC-1992; G02390,
23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hunter MG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Craig S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R38976;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R38976
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Craig S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
WO9313206-A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           standard;
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        10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Czaplewski LG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Czaplewski LG,
                                                                                                                   69 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             59
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Edwards RM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 87; DB 7; L
Pred. No. 1.51e-01;
2; Mismatches 0
Score 87;
Pred. No.
2; Misma
        Mismatches
                                  DB 7; L
1.51e-01;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gilbert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gilbert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               e.g. LD78 or MlP-
er than dodecamer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 69
                                                            Length 69
        0;
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        Indels
     0;
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     Gaps
     0;
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IDENTIFICATION OF THE PRINCE O
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NULT 28
R39092 standard; Protein; 6
R39092;
23-NOV-1993 (first entry)
LD78 Ser32>Ala.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-JUL-1993.
08-JUL-1993.
23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
                                                                                                                                                                                                                                                                                                                08-JUL-1993.
23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
23-DEC-1991; GB-021587.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S, Czaplewski LG, Edwards R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              providing better tissue penetration
Example 70; Page 75; 294pp; English.
Analogues of natural stem cell inhibitors, such as LD78 and MIP-
lalpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
utility as stem cell protective agents. The analogues may be used
in tumour therapy, psoriasis or other diseases involving hyper-
proliferative stem cells.
providing better tissue penetration
Example 68; Page 75; 294pp; English.
Analogues of natural stem cell inhibitors, suc
lalpha, having mutations to prevent or reduce
                                                                                                                                                          Protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     macrophage inflammatory protein psoriasis; hyperproliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R39090 standard; Protein; R39090; Girst entry; LD78 Tyr61>Ala.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha analogues correspond to the pref. LD78 analogues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SCI; stem cell inhibition; LD78; macrophage inflammatory protein; psoriasis; hyperproliferation.
                                                                                                                                                                                                                                               WPI; 93-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
WO9313206-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LD78 Tyr61>Ala.
SCI; stem cell inhibition; LD78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Protein with stem cell inhibition activity, e.g. LD78 or MlP-1 alpha - unable to form stable multimer higher than dodecamer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
W09313206-A.
                                                                                                                                                                                                                                                                                        Hunter MG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    48
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Similarity 83.3%;
10; Conserve+'
                                                                                                                                                                                                                                           227322/28.
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Pred. No. 1.51e-01;
2; Mismatches 0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACT2; MIP-lalpha;
multimer; tumour therapy;
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multimer; tumour therapy;
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                                                                                                                                                                                                                                                                                                                        Gilbert
    such as LD78 uce multimer f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
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Best Local
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Best Local S
                                                          Matches
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                                                                                                                                       providing better tissue penetration
Example 66; Page 74; 294pp; English.
Analogues of natural stem cell inhibitors, such as LD78 and MIP-
lalpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
utility as stem cell protective agents. The analogues may be used
in tumour therapy, psoriasis or other diseases involving hyper-
proliferative stem cells.

Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with
Gli18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LT 30
R39088 standard; Protein;
R39088;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    beyond certain stages (e.g. dodecamer), have improved solution properties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used in tumour therapy, psoriasis or other diseases involving hyper-proliferative stem cells.

Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha analogues correspond to the pref. LD78 analogues.
                                                                                                                                                                                                                                                                                                                                                                    08-JUL-1993.
23-DEC-1992; GD2390.
23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S, Czaplewski LG, Edwards RM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LD78 Ser1>Ala.
SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha;
macrophage inflammatory protein; multimer; tumour therapy;
                                                                                                                   analogues correspond
Sequence 69 AA;
                                                                                                                                                                                                                                                                                                            Protein with stem cell inhibition activity, e.g. LD78 or M1P-1 alpha - unable to form stable multimer higher than dodecamer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9313206-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                           WPI; 93-227322/28.
                                                                                                                                                                                                                                                                                                                                                           Hunter MG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         psoriasis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-NOV-1993
                48 qvcadpseewvq
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EICADPSEEWVQ
                                                          Similarity
10; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        hyperproliferation.
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                                                       94.6%;
larity 83.3%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
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12
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                                                                                                                                to the pref. LD78 analogues
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                                                       Score 87; D
Pred. No. 1.
2; Mismatcl
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Pred. No. 1.51e-01;
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                                                          Mismatches
                                                                      DB 7; L
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                                                                                    Length 69;
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                                                          0;
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1 87 94.6 92 2 A30574 macrophage inflammato 6.80e-06 2 87 94.6 93 2 B35673 LD78-beta protein pre 6.80e-06 3 89.1 148 2 S07723 immediate-early serum 7.39e-05 4 80 87.0 50 2 C60407 monocyte adherence-in 1.89e-04 6 80 87.0 109 2 A54678 monocyte chemotactic 1.89e-04 7 80 87.0 120 2 JE0177 lymphocyte and monocy 1.89e-04 8 78 84.8 120 2 I48147 monocyte chemoattract 4.80e-04 9 78 84.8 120 2 I46730 immune activation gen 7.62e-04 11 77 83.7 99 2 A60299 monocyte chemoattract 7.62e-04 11 77 83.6 99 2 JC23136 monocyte chemoattract 1.21e-03 13 76 82.6 99 2 JC23136 monocyte chemoattract 1.21e-03 14 74 80.4 99 2 JC23136 monocyte chemoattract 3.00e-03 15 72 78.3 99 2 JC23136 monocyte chemoattract 7.39e-03 16 72 78.3 99 2 JC23136 monocyte chemoattract 7.39e-03 17 77.2 92 2 C30552 monocyte chemoattract 7.39e-03 18 71 77.2 101 2 S42496 interleukin 8 - dog 1.15e-02 21 71 77.2 103 2 A44253 alveolar macrophage c 1.15e-02 22 71 77.2 103 2 A44253 interleukin 8 - sheep 1.15e-02 23 71 77.2 125 2 I46857 monocyte chemoattract 1.15e-02 24 16857 monocyte chemoattract 1.15e-02 25 71 77.2 125 2 I46857 monocyte chemoattract 1.15e-02	Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.  SUMMARIES  Result Query No. Score Match Length DB ID Description Pred. No.	**************************************	**************************************
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C35387 A23732 A46143 S30406 VGXPTV VGXPTV VGXPT5 S58150 G0253 XNBYGM A41672 S57723 S24736 JN0141 ASLJSY S53096 UDHUP1 1EECA1 1EECA1 1EECA1 1504806 E71408 B35962	E40442 F69370 Z2BP73 JC5687 QQBEP4 B64941 A46611 JC5759 S76412	2 148099 2 JC2478 2 JA8099 2 JC2478 2 J504736 2 I504736 2 I504736 2 I504736 2 I504736 2 I504981 2 S54987 2 S54997 2 S54997 2 S54999 2 S54991 2 S54991 2 S54991 2 S54991 2 S54991 2 S54991 2 S54997 2 S54997 2 S54997 2 S54997 2 S54997 2 S54991 1 S54991 2 S54991 2 S54991 1 S54991 2 S54991 2 S54991 1 CRHULL 2 I48148 1 ETHUL 2 I48148 1 ETHUL 2 I48148 1 CRHULL 2 I48148 1 CRHULL 3 S568497 2 I53497 2 I53497 2 I631882 1 OQEC16 2 I61182 2 A48093 1 OQEC16 2 S356845 1 OQEC16 2 S356845 1 OQEC16 2 S356845 2 A48093 1 OQEC16 2 S356845 3 OQEC16 2 S356845 3 OQEC16 3	
regulatory protein ko glutathione transfera mu-class glutathione hypothetical protein surface glycoprotein surface glycoprotein surface glycoprotein surface glycoprotein surface glycoprotein occludin - fuctose-6 glutamine - fuctose-6 glycerol 3-phosphate Irp protein - human TCA3 protein - human TCA3 protein - human i vpr protein - human i vpr protein - human i cystatin S precursor 17K antigen precursor insB protein - Escher hypothetical protein, hypothetical protein, protein hypothetical protein protein protein hypothetical protein protein protein protein protein protein hypothetical protein protein protein protein protein hypothetical protein protein protein protein protein hypothetical protein protein protein protein hypothetical protein hypothetical protein protein protein hypothetical hypothetical hypothetical hypothetical hypothetical hypothetical hypothetical hypothetical hypothetical hypothet	integrase homolog (R1 conserved hypothetica gene 278 protein - ph signal peptidase I (E gene 59 protein - sai hypothetical protein hypothetical protein brain-specific serine hypothetical protein brothetical protein	in precurse in precurse in rat advantage protection and the common section and the common sections are transcrise transcr	an prec otact
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FEATURE
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REFERENCE
#authors
#journal
                                                                                                                                         ##cross-references GDB:120368; OMIM:182283
#map_position 17q11-17q21
CLASSIFICATION #superfamily macrophage inflamm
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DATE
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ENTRY
                                    SUMMARY
                                                                                                                                                                                                                  GENETICS
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                                                                                                                                                                                                                                                                                                                                                                                                                       #Journal DNA Cell Biol. (1990) 9:589-602
#title Three human homologs of a murine gene encoding of stem cell proliferation.
#cross-references MUID:91103879
#accession A30412
 Query Match
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#title
                                                   33-57,34-73
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#authors Obaru, K.; Fukuda, M.; Maeda, S.; Shimada, K.

#journal J. Biochem. (1986) 99:885-994

#title A cDNA clone used to study mRNA inducible in human tonsillar

#cross-references MUID:86223879
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#accession A30574
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                                                                                                                                                                                                                               ##molecule_type mRNA
##residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ##residues 1-92 ##label ZIP 1-92 ##label ZIP 1-92 ##cross-references GB:M25315; NID:g602452; PID:g602453
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54.3
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macrophage inflammatory protein 1-alpha precursor - human
LD78-alpha protein precursor; lymphocyte tumor
promoter-induced protein; macrophage inflammatory protein
homolog GOS19-1; MIP-lalpha; pAT464; small inducible
cytokine A3; T-cell activation protein 1
#formal_name Homo sapiens #common_name man
03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      J. Immunol. (1989) 142:1582-1590
Mitogenic activation of human T cells induces two closely related genes which share structural similarities with new family of secreted factors.
                                                                                                                                       #superfamily macrophage inflammatory protein
                                    #length
                                                                                                                                                                                              GDB: SCYA3
                                                                                                                                                                                                                                                                                   A24198
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Structures of human genes coding for cytokine LD78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29-May-1998
A35673; A30574; A30412; A24198; A30908
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1465
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                                 #disulfide_bonds #status predicted
th 92 #molecular-weight 10085 #c/
                                                                  #domain signal sequence #status predicted
#product macrophage inflammatory protein 1
    predicted #label MAT\
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A56395
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secretory phospholipa
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DATE
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Matches 10; Conservative
                                       Matches
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#map_position 17q11-17q21
#introns 26/1; 64/2
#SSIFICATION #superfamily macrophage inflammatory protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 #authors Irving, S.G.; Zipfel, P.F.; Balke, J.; McBride, C.C.: Burd, P.R.; Stebenlist, U.; Kelly, K.
#journal Nucleic Acids Res. (1990) 18:3261-3270
#title Two inflammatory mediator cytokine genes are cloand variably amplified on chromosome 17q.
#cross-references MUID:90287702
#accession S10157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              #authors Blum, S.; Forsdyke, R.E.; Forsdyke, D.
#journal DNA Cell Biol. (1990) 9:589-602
#title Three human homologs of a murine gene
of stem cell proliferation.
#cross-references MUID:91103879
#accession B30412
                                                                                                                                                                                                                                                                                                     #gene
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#cross-references_MUID:90287155
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                                                                                                                                                                                                                                                                                                                                       ##residues 1-93 ##label IRV
##cross-references EMBL:X52149; NID:g34750; PID:g296666
#This protein is a member of a "small inducible" or "activation specific" gene family, is likely to be an early-acting interleukin, and is the product of a putative GO/Gl switch go
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ##molecule_type DNA
##residues 1-93 ##label BLU
##cross-references GB:M24110; GB
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                                                                                                                                                                                                                                                                                                                                                                                                                                           ##molecule_type mRNA
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72 QVCADPSEEWVQ 83
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B35673 #type complete
LD78-beta protein precursor - hu
macrophage inflammatory protein
inducible cytokine A4
                                                                                                                   #domain signal sequence #status predicted #label
#product LD78-beta protein #status predicted #lal
#length 93 #molecular-weight 10161 #checksum 7784
                                                                                                                                                                                                       cytokine
                                                                                                                                                                                                                                                                                                       GDB: SCYA4
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                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                preliminary
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                                                          94.6%;
                                                        Score 87; DB 2; 1
Pred. No. 6.80e-06;
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2; Mismatches 0;
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                                       Mismatches
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                                                                                                    #authors Sporn, S.A.; Eierman, D.F.; Johnson, C.E.; Morris, J.;
Martin, G.; Ladner, M.; Haskill, S.

#journal J. Immunol. (1990) 144:4434-4441

#title Monocyte adherence results in selective induction of novel genes sharing homology with mediators of inflammation and tissue repair.

#cross-references_MUID:90257367
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#cross-references MUID:91128376
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##cross-references GB:M57441; NID:g205333; PID:g205334
##experimental_source spleen cells; PID:g205333; PID:g205334
##enote the authors translated the codon GAA for residue
##note Lys and GCT for residue 63 as Leu
               ##molecule_type mRNA
##residues 1-50 ##label SPO
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Biochem. Biophys. Res. Commun. (1991) 174:504-509
Molecular cloning of rat monocyte chemoattractant protein-
(MCP-1) and its expression in rat spleen cells and tumor
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#product immediate-early serum-responsive protein JE
#status predicted #label MAT
#length 148 #molecular-weight 16460 #checksum 4876
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Analysis of the rat JE gene promoter identifies an AP-1 binding site essential for basal expression but not f
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#cross-references MUID:89071764
#accession A31767
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##cross-references GB:J04130; NII
                    ##molecule_type mRNA
##residues 1-92 ##label CHA
##cross-references GB:X16166; NII
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##residues 1-92
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##cross-references GB:M69201; NID:9178021
##note 15-Ala was also found
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##experimental_source natural killer cell, strain CD3-CD2+, F5, 5IIIE5
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J. Biol. Chem. (1991) 266:17531-17536

The gene encoding the Act-2 cytokine. Genomic structure, HTLY-I/tax responsiveness of 5' upstream sequences, and chromosomal localization.
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                                                                                                                                                                                                                                                                                                                                                                                                  Proc. Natl. Acad. Sci. U.S.A. (1988) 85:9704-9708 Identification, cloning, and characterization of an immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A40978
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07-Jun-1990 #sequence_revision 29-May-1998 #text_change
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#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocyte and fibroblast-derived inflammatory agents, growth factors, and indicators of various activation processes.

#cross-references_MUID:89093958
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#title Mitogenic activation of human T cells induces two closely related genes which share.structural similarities with a construction of human the construction of human the construction of human the construction of human to construct the construction of two closely with the construction of human to construct the construction of human to 
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Similarity 75.0%;
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                                                             monocyte chemoattractant protein MCP-3
#formal_name Homo sapiens #common_name man
28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change
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A novel polypeptide secreted by activated human T
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                                                                                                                                                                              A54678 #type complete protein 3 precursor -
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:es GB:M57503; NID:g339726; PID:g339727
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th 92 #molecular-weight 10212 #chec
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##cross-references EMBL:X71087; NID:9288396; PID:9288397
This protein induces proteinase secretion and chemotaxis
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##cross-references GB:X72309
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##residues 1-10
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Local Similarity 75.0%;
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                                                    Youn, B.S.; Zhang, S.; Broxmeryer, H.E.; Antol, K.; Fraser Jr., M.J.; Hangoc, G.; Kwon, B.S. Blochem. Biophys. Res. Commun. (1998) 247:217-222 Isolation and Characterization of LMC, a novel lymphocyte and monocyte chemoattractant human CC chemokine, with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cloning of the cDNA and comparison with other chemokines. {\tt JC1478}
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The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome
                    myelosuppressive activity JE0177
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cytokine; glycoprotein; inflammation
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JE0170 #type complete
Jymphocyte and monocyte chemoattractant CC chemokine -
#formal_name Homo sapiens #common_name man
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Pred. No. 1.89e-04;
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Best Local
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#title Cloning and expression of JE, a gene inducible by platelet-derived growth factor and whose product has cytokine-like properties.

#cross-references MUID:88234501

#accession A30209
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#title
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#cross-references MUID:93267104
                    #accession A44771
#molecule_type DNA; mRNA
##residues 1-148 ##label
##cross-references GB:J04467;
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##cross-references GB:M19681; NID:g193486; PID:g387168; GB:M19682
**NCE A44771
                                                                                                                                                                                                               ##molecule_type DNA
##residues 1-1
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##residues 1-120 ##label RES
##cross-references GB:L04985; NID:g349820; PID:g349821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ##residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84.8%;
Local Similarity 66.7%;
les 8; Conservation
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                                                                                                                                                                                                                                                                                                                                                                                                     A30209 #type complete
PDGF-inducible JE glycoprotein precursor - mouse
#formal_name Mus musculus #common_name house mouse
01-Dec-1989 #sequence_revision 01-Dec-1989 #text_cl
01-May-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             148147 #type complete
monocyte chemoattractant protein-1 - guinea pig
#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
09-May-1997
                                                                                                     Kawahara, R.S.; Deuel, T.F.
J. Biol. Chem. (1989) 264:679-682
Platelet-derived growth factor-inducible gene JE is a member of a family of small inducible genes related to platelet
                                                                                                                                                                                                                                                                                                                                                                                            A30209; A44771; A30861
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#length 120 #molecular-weight 13741 #checksum
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J. Immunol. (1993) 150:5025-5032
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gth 120 #molecula
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50.0%;
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Pred. No. 4.80e-04
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            KA2
NID:g193488; PID:g387169
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Best Local S
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                                                                                #title Structure of human monocyte chemotactic protein regulation by TPA.
#cross-references MID:90290466
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              ##molecule_type DNA
##residues 1-99 ##label :
##cross-references GB:M37719;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ##molecule_type mRNA
#residues 1-92 ##label MOR
##cross-references GB:D17402; NID:g599577; PID:g599578
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Local Similarity 66.7%;
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                                                                                                                                                                                                                                                            monocyte chemoattractant protein 1 precursor - human GDCF-1; glioma-derived monocyte chemotactic factor 1; MCAF; MCP-1; monocyte chemotactic factor 1; monocyte secretory protein; tumor-derived chemotactic factor glioma-derived chemotactic factor 2 (GDCF-2) #formal_name Homo sapiens #common_name man
                                                                       A35474
                                                                                                                                        Shyy, Y.J.; Li, Y.S.; Kolattukudy, P.E. Blochem. Blophys. Res. Commun. (1990) 1
                                                                                                                                                                                                              20-Mar-1998
A35474; A33476; S03339; I51841; A60299; A32300; A32396;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mori, S.; Goto, K.; Goto, F.; Mutakami, Yoshinaga, M. Int. Immunol. (1994) 6:149-156
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#length 92 #molecular-weight 10066
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26/1; 65/2
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20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change
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#formal_name Oryctolagus cuniculus #common_name
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Pred. No. 7.62e-04;
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Pred. No. 4.80e-04
SHY
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#title
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#title Cloning and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCAF).
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#Journal Adv. Exp. Med. Biol. (1991) 305:47-56
#Litle Human monocyte chemoattractant protein-1 (MCP-1).
#cross-references_MUID:92095166
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##cross-references GB:X14768; NID:g34513; PID:g34514

##experimental_source glioma cell line U-105MG

IS1841
                                                                        ##molecule_type protein
##residues 'X',25-99 ##label ROB
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##residues 1-99 ##label ROL
##cross-references GB:M30816; GB
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##residues 1-99 ##label FUR
                                                                                                                                                                                                                                                                                                                                                                                                                                       ##status
Decock, B.; Conings, Damme, J.
                                                                                                                                                                                                                           Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; App. Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854 Complete amino acid sequence of a human monocyte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A chemoattractant expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical to monocyte chemoattractant protein-1/monocyte chemotactic activating factor (MCP-1/MCAF).
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The human homolog of the JE gene encodes a monc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A60299
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FEBS Lett. (1989) 244:487-493
                                                        A34561
                                                                                                                                   A32396
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                            R.; Lenaerts, J.P.;
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#title Identification of the monocyte chemotactic protein osteosarcoma cells and monocytes: detection of a N-terminally processed form.
#cross-references_MUID:90211336
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##molecule_type protein
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ap_position 17q11.2-17q12
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##residues 24-28,'Q',30-99 ##label YEQ
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##residues 1-99 ##label LIY
##cross-references GB:S69738; NID:g545464; PID:g545465
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Local Similarity 75.0%;
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The expression of monocyte chemotactic protein (Molaman vascular endothelium in vitro and in vivo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ye, Q.N.; Su, G.F.; Yuan, Y.; Huang, C.F. Chinese J. Microbiol. Immunol. (1994) 14:29-32 The PCR. cloning and sequencing of human monocyte chemoattractant protein-1 (MCP-1) gene.
                                                           152322
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cytokine; glycoprotein; inflammation; pyroglutamic acid
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                                                                                                                     Shi, M.M.; Godleski, J.J.; Paulauskis, J.D.
Biochem. Biophys. Res. Commun. (1995) 211:289-295
Molecular cloning and posttranscriptional regulation of macrophage inflammatory protein-1 alpha in alveolar
                                                                                                                                                                                                                                                                  152322 #type complete
macrophage inflammatory protein-lalpha - rat
#formal_name Rattus norvegicus #common_name Norway rat
29-May-1998 #sequence_revision 29-May-1998 #text_change
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    Y.S.; Shyy, Y.J.; Wright, J.G.; Valente,
J.F.; Kolattukudy, P.E.

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mature form) #status experimental\
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##residues 1-99 ##label ZAC
##cross references EMBL:X79416; NID:g872312; PID:g872313
##cross references EMBL:X79416; NID:g872312; PID:g872313
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##residues 1-99 ##label HOS
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:FICATION #superfamily macrophage inflammatory protein
W #length 92 #molecular-weight 10335 #checksu
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##molecule_type mRNA
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               Biochem. Biophys. Res. Commun. (1994) 205:148-153
Porcine luteal cells express monocyte chemoattractant
protein-2 (MCP-2): Analysis by cDNA cloning and northern
analysis.
JC2417
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JC2417
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monocyte chemoattractant protein-2 - pig
formal_name Sus scrofa domestica #common_name domestic pig
24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change
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Blochem. Blophys. Res. Commun. (1994) 199:962-968

Porcine luteal cells express monocyte chemoattractant protein-1 (MCP-1): Analysis by polymerase chain reac
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monocyte chemoattractant protein-1 precursor - pig
#formal_name Sus scrofa domestica #common_name domestic pig
30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
08-Sep-1997
                                                                                               Hosang, K.; Kr
Scheit, K.H.
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larity 75.0%;
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JC2136
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Pred. No. 1.21e-03;
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Best Local Similarity 66.7%;
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                                    #journal #title
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24-99
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    #authors Wempe, F.; Henschen, A.; Scheit, K.H.
#journal DNA Cell Biol. (1991) 10:671-679
#title Gene expression and cDNA colning identified a major basic
protein constituent of bovine seminal plasma as bovine
monocyte-chemoattractant protein-1 (MCP-1).
#cross-references MUID:92096117
                                                                   #authors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    #accession
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##residues 50-68,'X',70-74,'X',76 ##label WE2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ##residues 1-99 ##label WEM 1-99 ##cross-references GB:M84602; GB:M85264; NID:g163394; PID:g163395
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##experimental_source corpus luteum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ##experimental_source seminal vesicle
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                                                                                                                                                                                                                                                                                                73 ELCADPKOKWVO 84
                                                                                                                                                                                                                                                                                                                                  Match 78.3%;
Local Similarity 66.7%;
les 8; Conservative
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protein-1
JC2336
                              Wempe, F.; Kuhlmann, J.K
Biochem. Biophys. Res. C
Characterization of the
                                                                                                                                      monocyte chemoattractant protein-1 - bovine #formal_name Bos primigenius indicus #common_name zebu cattle 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
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#product monocyte chemoattractant protein 1 #status
predicted #label MAT\
#binding_site carbohydrate (Asn) (covalent) #status
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199 #molecular-weight 10903
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                                  Kuhlmann, J.K.; Scheit, K.H. iophys. Res. Commun. (1994) 202:1272-1279 zation of the bovine monocyte chemoattractant
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Pred. No.
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#accession

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Best Local Similarity 66.7%;
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24-92
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#accession JL0088
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#accession C30552
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                                                                                                                                                                                                                                                                                     #submission
#description
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                                                                                                                                             ##cross-references EMBL:X62502; 1 This protein is a monor.
                                                                                                                                                                                                                                                                                                                                                                      ##molecule_type protein
##residues 24-33,'XX',36,'X',38 ##label SH2
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##residues
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cession PS0304
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  J. Exp. Med. (1988) 168:2251-2259
Resolution of the two components of macrophage inflammatory protein 1, and cloning and characterization of one of those components, macrophage inflammatory protein 1 beta.
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macrophage inflammatory protein 1-beta - mouse
#400; SIS gamma; T-cell activation protein gamma
#formal_name Mus musculus #common_name house mouse
28-Aug-1989 #sequence_revision 28-Aug-1989 #text_change
20-Mar-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sherry, B.; Tekamp-Olson, P.;
Davatelis, G.; Wolpe, S.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
J. Immunol. (1989) 142:679-687
A family of small inducible proteins secreted by leukocytes
are members of a new superfamily that includes leukocyte
and fibroblast-derived inflammatory agents, growth factors,
and indicators of various activation processes.
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26/1; 65/2
*superfamily macrophage inflammatory
*length 99 *molecular-weight 11114
                                                                            glycoprotein
                                                                                        26/1; 64/2 #superfamily macrophage inflammatory protein
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#domain signal sequence #status predicted #label SIG\
#product macrophage inflammatory protein 1-beta #statue experimental #label MAT\
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Pred. No. 7.39e-03
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Masiarz, F.; Coit,
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Coit, D.; Cerami,
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Best Local Similarity 72.7%;
Matches 8; Conservative
                             Matches
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Best Local
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Best Local Similarity 66.7%;
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##residues 1-9
                                                                                                                                                                           ##molecule_type mRNA
                                                                                                                                              ##residues 1-101 ##label ##cross-references GB:S74436;
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 75
                                         Match 77.2%;
Local Similarity 66.7%;
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EVCLDPKEKWVQ 86
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                                                                                                                                                                                                                                                                                                                    I46997 #type complete
Interleukin-8 - sheep
#formal_name Ovis sp. #common_name sheep
21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change
09-May-1997
TA6007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gene (1993) 131:305-306
Cloning of a canine gene homologous
interleukin-8-encoding gene.
                                                                                                                                                                                                                                    Seow, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, Immunol. Cell Biol. (1994) 72:398-405 Cloning, sequencing, expression and inflammator; skin of ovine interleukin-8.
                                                                                    #superfamily beta-thromboglobulin
#length 101 #molecular-weight 113
                                                                                                                   OIL-8
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#length 95 #molecular-weight 10611
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#formal_name Canis lupus familiaris #common_name dog
19-May-1994 #sequence_revision 19-May-1994 #text_change
                                                                                                                                                                                                                                                                                                I46997
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Pred. No. 1.15e-02
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##experimental_source alveolar macrophage
sequence extracted from NCBI backbone (NCBIN:117415,
NCBIP:117416)
IFFICATION #superfamily beta-thromboglobulin
RY #length 103 #molecular-weight 11677 #checksum 8904
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##residues 1-103 ##label GOO
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Molecular cloning of porcine alveolar macrophage-derived neutrophil chemotactic factors I and II; identification porcine IL-8 and another intercrine-alpha protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 alveolar macrophage chemotactic factor-I (AMCF-I)
interleukin-8 homolog - pig
#formal_name Sus scrofa domestica #common_name domestic pig
30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change
23-Feb-1996
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Cordier, G.
submitted to the EMBL Data Library, March 1994
Nucleotide sequence of ovine interleukin 8 cDN
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#common_name domestic sheep
06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
08-Sep-1997
A53096 #type complete interleukin-8 precursor -
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Pred. No. 1.15e-02;
1; Mismatches 3
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##cross-references GB:M86923; NID:g164520; PID:g164521
IFICATION #superfamily beta-thromboglobulin
RX #length 103 #molecular-weight 11633 #chec
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J. Blol. Chem. (194) 269:77-85
Regulation of interleukin-8 expression in porcine alveolar macrophages by bacterial lipopolysaccharide.
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A53096
                Bartels, J.; Schlueter, C.; Richter, E.; Noso, N.; Kulke, R. Christophers, E.; Schroeder, J.M.
Biochem. Biophys. Res. Commun. (1996) 225:1045-1051
Human dermal fibroblasts express eotaxin: Molecular cloning, mRNA expression, and identification of eotaxin sequence
                                                                                                                         JC491
                                                                                                                                      #formal_name Homo sapiens #common_name man
01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change
08-Sep-1997
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#length 125 #molecular-weight 13776
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J. Immunol. (1991) 14:3483-3488
Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and expression in spleen cells.
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monocyte chemoattractant protein-1 - rabbit
#formal_name Oryctolagus cuniculus #common_name domestic
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Best Local Similarity 66.7%;
Matches 8; Conservative
                                                                                #journal
#title
                                                                                                                                                                                                                                                                                                                                                                         #journal J. Exp. Med. (1988) 167:1883-1893
#title Molecular cloning of a human monocyte-derived neutrophil chemotactic factor (MDNCF) and the induction of MDNCF m by interleukin 1 and tumor necrosis factor.
#cross-references MUID:88258376
#accession JL0041
promyelocytes. #cross-references MUID:89313739
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#accession A37034
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##cross-references GB:M28130; NID:g186367; PID:g186368
##note the authors failed to translate the last thirty-six
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##experimental_source dermal fibroblast
This protein has eosinophil specific chemotatic activity.
FICATION #superfamily macrophage inflammatory protein
                                                                                                                                                                                                                                                                                      ##molecule_type mRNA
#residues 1-99 ##label MA1
##cross-references EMBL:Y00787; NID:g34518; PID:g34519
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interleukin-8 precursor - human
beta-thromboglobulin-like protein; fibroblast-derived
beta-thromboglobulin-like protein; fibroblast-derived
neutrophil-activating factor alpha; lung carcinoma-derived
chemotaxin; lymphocyte-derived neutrophil-activating
factor; monocyte-derived neutrophil chemotactic factor;
monocyte-derived neutrophil-activating factor
#formal_name Homo sapiens #common_name man
08-Dec-1992 #sequence_revision 08-Dec-1992 #text_change
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J. Immunol. (1989) 143:1366-1371
Genomic structure of the human monocyte-derived neutrophil chemotactic factor IL-8.
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                                            Kowalski, J.; Denhardt, D.T.
Mol. Cell. Biol. (1989) 9:1946-1957
Mol. Cell. Biol. (1989) 9:1946-1957
Regulation of the mRNA for monocyte-derived
neutrophil-activating peptide in differentiating HL60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matsushima, K.; Morishita, K.; Yoshimura, T.; Lavu, S.; Kobayashi, Y.; Lew, W.; Appella, E.; Kung, H.F.; Leonard.
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#product eotaxin #status predicted #label MAT

jth 97 #molecular-weight 10790 #checksum 448
                                                                                                                                                                                the sequence shows similarity to several platelet derived factors, a v-src-induced protein, a growth-regulated gene product (gro), and an IFN-gamma-inducible protein
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Pred. No. 1.80e-02;
1; Mismatches 3;
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#title II-lalpha or tumor necrosis factor-alpha stimulate release of three NAP-1/II-8-related neutrophil chemotactic proteins in #cross-references MUID:90187866

#accession A60401
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#cross-references MUID:88162914
#accession A28598
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#title Purification and partial primary sequence of a chemotactic protein for polymorphonuclear leukocytes derived from human lung giant cell carcinoma LU65C cells.
#cross-references MUID:89279141
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#accession A39960
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##residues 23-32 ##label SCH
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##note aminor component of this material (15%) includes
##note additional two amino acids at the amino end
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##residues 28-59 ##label WAL
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##residues 1-99 ##label KOW
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submitted to 1
S37634
Van Damme, J.; Decock, B.; Conings, R.; Lenaerts, J.P.;
Opdenakker, G.; Billiau, A.
Eur. J. Immunol. (1989) 19:1189-1194
The chemotactic activity for granulocytes produced by virally
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Appella, E.; Oppenheim, J.J.; Leonard, E.J. Proc. Natl. Acad. Sci. U.S.A. (1987) 84:9233-9237 Purification of a human monocyte-derived neutrophil chemotactic factor that has peptide sequence similarity to other host defense cytokines.
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Biochem. Biophys. Res. Commun. (1988) 151:883-890
Structure determination of a human lymphocyte derived
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##molecule_type protein

##residues 21-33,'X',35,'X',37-47 ##label YO2

##residues the forms starting from positions 21, 23, and

##note represented 8%, 47%, and 45%, respectively,

interleukin-8
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#accession S03975
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#accession S15827
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#journal Biochem. J. (1991) 275:581-584
#title Formation of neutrophil-activating peptide 2 from
platelet-derived connective-tissue-activating pe
by different tissue proteinases.
#cross-references MIDI:91248085
#accession S15417
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##residues 28-99 ##label CAR
                                                           ##molecule_type protein
##residues 23-46 ##label GOL
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##residues 28-47 ##label VA3
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##residues 21-67 ##label VA2
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                                                                                                                                                  Golds, E.E.; Mason, P.; Nyirkos, P.
Blochem. J. (1989) 259:585-588
Inflammatory cytokines induce synthesis and secretion of protein and a neutrophil chemotactic factor but not beta-2--microglobulin in human synovial cells and
Hotta, K.; Hayashi, K.; Ishikawa, J.; K.; Mizumo, S.; Suzuki, K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           granulocytosis-promoting activity. A60847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Van Damme, J.; Van Beeumen, J.; Opdenakker, G.; Billiau, A. J. Exp. Med. (1988) 167:1364-1376
A novel, NH-2-terminal sequence-characterized human monokine possessing neutrophil chemotactic, skin-reactive, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Yoshimura, T.; Robinson, E.A.; Appella, E.; Matsushima, K.; Showalter, S.D.; Skeel, A.; Leonard, E.J.
Mol. Immunol. (1989) 26:87-93
Three forms of monocyte-derived neutrophil chemotactic factor (MDNCF) distinguished by different lengths of the amino-terminal sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eur. J. Biochem. (1989) 181:337-344
Purification of granulocyte chemotactic peptide/interleukin-8
reveals N-terminal sequence heterogeneity similar to that
of beta-thromboglobulin.
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#gene
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#title Coding region structure of interleukin-8 gene of human lung
giant cell carcinoma LU65C cells that produce
LUCT/interliukin-8: homogeneity in interleuki-8 genes.
#cross-references MUID:90346419
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##cross-references GB:Y10802; NID:g1924937; PID:e294088; PID:g1924938
##experimental_source bone marrow
This protein belongs to the beta-chemokine family which is one of
the major HIV-suppressive factors. It plays roles in autoimmune
processes such as multiple sclerosis and rheumatoid arthritis and
in tumor biology, and contribute to the trafficking and
recuitment of the responsive cells.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Match 76.18;
Local Similarity 66.78;
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Similarity 66.7%;
8; Conservative
                                                                                                                                                                                                                                    A32393 #type complete
macrophage inflammatory protein-1-alpha precursor - mouse
heparin-binding chemotaxis protein; L2G25B protein;
SCI/MIP-la; SIS alpha; stem cell inhibitor/macrophage
inflammatory protein 1-alpha; T-cell activation protein
                                                                                                         08-Sep-1997
S11685; A3239
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P.; Van Aelst, I.; Van Damme, J.; Opdenakker, G.
Biochem. Biophys. Res. Commun. (1997) 231:726-730
Human monocyte chemotactic protein-2: cDNA cloning and
Grove, M.; Lowe, S.; Graham, G.; Pragnell, I.; Plumb, Nucleic Acids Res. (1990) 18:5561
                                                                                                                                                             #formal_name Mus musculus #common_name house mouse
17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            #length 99 #molecular-weight 11246 #checksum
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#formal_name Homo sapiens #common_name man
02-May-1997 #sequence_revision 18-Jul-1997 #text_change
31-Oct-1997
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predicted #label MAT
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#product monocyte chemotactic protein-2 #status
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Pred. No. 1.80e-02;
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#title
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Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal J. Immunol. (1989) 142:679-68;
#title A family of small inducible proteins secreted by leukocytes
are members of a new superfamily that includes leukocyte
and fibroblast-derived inflammatory agents, growth factors,
and indicators of various activation processes.
#cross-references_MUID:89093958
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        #journal
                                                                                                                                                                                            #cross-references MUID:89067830 #accession PS0303
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#accession S04533
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#journal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967
#title cDNA sequence of two inducible T-cell genes.
#cross-references_MUID:89184547
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##cross-references EMBL:x53372; NID:g54062; PID:g297531
##note the authors' translation of the nucleotide sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ##residues 1-21,'L',23-61,'A',63-92 ##label BRO ##cross-references GB:M23447; NID:g533240; PID:g533241
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##cross-references EMBL:X12531; NID:g53122; PID:g53123
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##cross-references EMBL:X12531
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Cloning and characterization of a cDNA for murine macrophage inflammatory protein (MIP), a novel monokine with inflammatory and chemokinetic properties.
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Davatelis, G.; Tekamp-Olson,
Gallegos, C.;
Wolpe, S.D.; Davatelis, G.; Sherry, B.; Beutler, B.; Hesse, D.G.; Nguyen, H.T.; Moldawer, L.L.; Nathan, C.F.; Lowry, S.F.; Cerami, A. J. Exp. Med. (1988) 167:570-581
                                                                                                                                                                                                                                         J. Exp. Med. (1988) 168:2251-2259
Resolution of the two components of macrophage inflammatory protein 1, and cloning and characterization of one of those components, macrophage inflammatory protein 1 beta.
                                                                                                                                                                                                                                                                                                                                                                              Sherry, B.; Tekamp-Olson, P.;
Davatelis, G.; Wolpe, S.D.;
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Cerami, A.
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                                                                                                                                          24-33,'XX',36-54 ##label SHE
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Coit, D.; Merryweather,
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Masiarz, F.; Coit,
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Coit, D.; Cerami,
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Best Local Similarity 66.7%;
                                                      #authors Beaublen, B.C.; Collins, P.D.; Jose, P.J.; Totty, N.F.;
Hsuan, J.; Waterfield, M.D.; Williams, T.J.
Biochem. J. (1990) 271:797-801
#title A novel neutrophil chemoattractant generated during an inflammatory reaction in the rabbit peritoneal cavity vivo. Purification, partial amino acid sequence and structural relationship to interleukin 8.
#cross-references MUID:91058518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1-23
24-92
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                                         #accession
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                                                                                                                                                                                                                                                                                                                                                         expression in spleen cells. #cross-references MUID:91225489
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##cross-references GB:M73061; NI
This protein is a monokine.
                                                                                                                                                                                                                                                     ##molecule_type DNA
               ##molecule_type
                                                                                                                                                                                                                                                                                            ##molecule_type mRNA
                                                                                                                                                                                                                                                                                                                 ##status
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J. Immunol. (1991) 146:4031-4040
Genomic structure of murine macrophage inflammatory
protein-1-alpha and conservation of potential regulatory
sequences with a human homolog, LD78.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       146871 #type complete
interleukin-8 - rabbit
neutrophil attractant/activation protein-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      #domain signal sequence #status predicted #label #product macrophage inflammatory protein #status experimental #label MAT #length 92 #molecular-weight 10345 #checksum 5009
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                                             S13052
                                                                                                                                                                                                                                                                                                                                                                                                Yoshimura, T.; Yuhki, N.
J. Immunol. (1991) 146:3483-3488
Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Widmer, U.; Yang, Z.; van Deventer,
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146871; S13052
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protein
23-33,'X',35,'X',37-46,'X',48-49,'I',51-53 ##label BEA
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Pred. No. 2.80e-02;
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Best Local Similarity 66.7%;
Matches 8; Conservative
  Query Match
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#journal J. Exp. Med. (1995) 181:1211-1216
#title Constitutive and allergen-induced expression of eotaxin mRNA
in the guinea pig lung.
#cross-references MUID:95173589
#accession 148099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       #authors
                                                                                                                                                                         ##molecule_type mRNA
##residues 1-96 ##label JOS
##cross-references EMBL:X77603; NID:g602551; PID:g602552
##cross-references EMBL:X77603; NID:g602551; PID:g602552
This protein is identified as a potent eosinophil chemoattractant.
NT This protein is identified as a potent eosinophil chemoattractant.
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# residues 1-96 # label RES
##cross-references EMBL:U18941; NID:g687655; PID:g687656
##COSS-references EMBL:U18941; NID:g687655; PID:g687656
#FICATION #Superfamily macrophage inflammatory protein
#736
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Local Similarity 72.7%;
les 8; Conservative
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Biochem. Biophys. Res. Commun. (1994) 205:788-794
Eotaxin: Cloning of an eosinophil chemoattractant cytokine and increased mRNA expression in allergen-challenged
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             148099 #type complete
eotaxin precursor - guinea pig
#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
09-May-1997
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cytokine
#length 101 #molecular-weight 11402 #checksum 1085
                                                                                                                                                                                                                                                                                                     guinea-pig lungs. JC2478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          #formal_name Rattus norvegicus #common_name Norway rat
21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change
08-Sep-1997
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Leder, P.
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#product eotaxin #status predicted #label MAT\
#binding_site carbohydrate (Thr) (covalent) #status
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  72.8%;
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                                          #molecular-weight 10695 #checksum 7329
Score 67; DB 2;
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Pred. No. 6.70e-02;
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Pred. No. 4.33e-02;
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Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

MPsrch\_pp protein - protein database search, using Smith-Waterman algorithm

Run on: īabular output not generated. Thu Apr 1 07:39:00 1999; MasPar time 2.30 Seconds 139.843 Million cell updates/sec

Description:
Perfect Score:
Sequence: Title: >US-08-927-939-12 (1-12) from US08927939.pep 92 1 EICADPSEEWVQ 12

Scoring table:

РАМ 150 Gap 15

Searched: 74019 seqs, 26840295 residues

Post-processing: Minimum Match 0% Listing first 100 summaries

Database: swiss-prot36 1:swissprot

Statistics: Mean 25.534; Variance 34.572; scale 0.739

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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P10147;

01-MAR-1989 (REL. 10, CREATED)

01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)

01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)

MACROPHAGE INFLAMMATORY PROTEIN 1-ALIPHA PRECURSOR (MIP-1-ALIPHA)

(TONSILLAR LYMPHOCYTE LD78 ALIPHA PROTEIN) (GOS19-1 PROTEIN) (SIS-BETA)

(PAT 464.1) (SMALL INDUCIBLE CYTOKINE A3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.

MEDLINE; 90287155.

NAKAO M., NOMIYAMA H., SHIMADA K.;

MOL. CELL. BIOL. 10:3646-3658(1990).

-!- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.

-!- INDUCTION: BY TPA OR PHA (TPA = 12-O-TETRADECANOYL PHORBOL-13

ACETATE (TUMOR PROMOTER); PHA = PHYTOHEMAGGLUTININ (T-CELL
                                                                                                                                                                                                    SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. MEDLINE; 86223879. OBARU K., FUKUDA M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HOMO SAPIENS (HUMAN)
EUKARYOTA; METAZOA; (
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. MEDLINE; 89140347.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       J. BIOCHEM.
                                                                                                                                                                                                                         CYTOKINE;
                                                                                                                                                                                                                                          PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA CELL BIOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BLUM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZIPFEL P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                   71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IMMUNOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MITOGEN)
QVCADPSEEWVQ
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                                                         10;
                                                                        Similarity
                                                                                                                                                                                                PS00472; SMALL_CYTOKINES_CC; 1.
;; CHEMOTAXIS; INFLAMMATORY RESPONSE;
potential.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .F., BALKE J., IRVING S
)L. 142:1582-1590(1989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FUKUDA M., MAEDA S., M. 99:885-894(1986).
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54.3
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23
33
34
3A;
                                                                                                                               92
                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YKE R.E., FORSDYKE
9:589-602(1990).
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563
1180
1182
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                                                                                                                               10085
                                                                        94.6%;
83.3%;
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                                                                                                                               MW;
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GUNB_CLOTM
EX5B_ECOLI
ABL2_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ALIGNMENTS
                                                   Score 87; DB 1; 1
Pred. No. 5.77e-07;
2; Mismatches (
                                                                                                                            MACROPHAGE INFLAMMATORY
BY SIMILARITY.
BY SIMILARITY.
C24DD919 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -BETA ARE VERY CLOSELY RELATED.
INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
G.
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ENDOGLUCANASE B PRECUR
EXODEOXYRIBONUCLEASE V
TYROSINE-PROTEIN KINAS
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                                                                                                                                                                                                                       SIGNAL
                                                     0
                                                                                         Length
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                                                     Indels
                                                                                         92;
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                                                                                                                                                                                   PROTEIN 1-ALPHA
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                                                     Gaps
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CC -1- SIMILARITY: 464.1 AND 464.2 ARE VERY CLOSELY RELATED.

CC -1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE CC).

DR EMBL; X52149; G296666; -.

DR EMBL; M34110; G182849; -.

DR EMBL; D90145; G219088; -.

PR EMBL; B30908; -.

R PIR; B30908; B30908.

R PIR; B30912; B30412.

R PIR; B35673; B35673.

R PIR; S10157; S10157.
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Best Local Similarity
Matches 10; Consei
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P16619;
01-AUG-1990
01-AUG-1990
01-NOV-1997
                                                                                            MCP1_RAT STANDARD; PRT; 148
P14844;
01-APR-1990 (REL. 14, CREATED)
01-APR-1990 (REL. 14, LAST SEQUENCE UPDAT
15-JUL-1998 (REL. 36, LAST ANNOTATION UPD
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CHAIN
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TONSILLAR LYMPHOCYTE LD78 BETA
(PAT 464.2).
SCYA3L1 OR 464.2.
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA CELL
                                     SERUM-RESPONSIVE JE PROTEIN).
SCYA2 OR JE OR MCP1.
RATTUS NORVEGICUS (RAT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE MEDLINE; BLUM S.,
                RATTUS NORVEGICUS (RAT).
EUKARYOTA; METAZOA; CHOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HSSP; P13236;
MIM; 601395;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUCLEIC ACIDS RES. 18:3261-3270(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
TISSUE-BLOOD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2
                                                                                                                                                                                                                                                                                                                           72 QVCADPSEEWVQ
                                                                                                                                                                                                                                                                                        \vdash
                                                                                                                                                                                                                                                                                   EICADPSEEWVQ
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; 91103879.
; FORSDYKE R.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PS00472; SMALL_CYTOKINES_CC; CHEMOTAXIS; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BIOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  90 (REL. 15, CREATED)
90 (REL. 15, LAST SEQUENCE UPDATE)
97 (REL. 35, LAST ANNOTATION UPDATE)
LYMPHOCYTE LD78 BETA PROTEIN PRECUR
RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                           1
24
34
35
3A,
                                                                                                                                                                                                                                                                                                                                                                   Conservative
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                                                                                                                                                                                                                                                                                      12
                                                                                                                                                                                                                                                                                                                         83
                                                                                                                                                                                                                                                                                                                                                                                                                                               23
93
58
74
10161 MW;
                                                                                                                                                                                                                                                                                                                                                                                      94.6%;
                  CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FORSDYKE
                                                                                                                                                                                                                                                                                                                                                               Score 87;
Pred. No.
2; Misma
                                                                                                                                                                                                                                                                                                                                                                                                                                               LD78 BETA / G0S19-2 /
BY SIMILARITY.
BY SIMILARITY.
; 21EDDB04 CRC32;
                     VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERTEBRATA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          D.R.;
                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                      87; DB 1; I
No. 5.77e-07;
                                                                                              3 UPDATE)
ION UPDATE)
CURSOR (MCP-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       93
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                                                                                                                                                                                                     A
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                     TETRAPODA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                O.W.,
                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                     (IMMEDIATE-EARLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (G0S19-2 PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MORTON C.
                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            464.2
                                                                                                                                                                                                                                                                                                                                                                                                           93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                 0;
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RESULT AND SERVICE STREET OF SERVICE STREET SERVICE SE
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Best Local
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EMBL; X17053; G55531; -.
EMBL; X17441; G205334; -.
PIR; JN0128; JN0128.
PIR; S07723; S07723.
                                                                                      SEQUENCE FROM N.A. MEDLINE; 89093958. BROWN K.D., ZURAWSK J. IMMUNOL. 142:679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (1)
SEQUENCE FROM N.:
STRAIN-WAG/RIJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE; 90174947.
TIMMERS H.T.H.M., 1
NUCLEIC ACIDS RES.
[2]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DISULFID
DISULFID
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MILB_HUMAN STANDARD; PRT; 92 AA.

P13236; P22617; Q13704;
O1-JAN-1990 (REL. 13, CREATED)
O1-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
O1-NOV-1997 (REL. 13, LAST SEQUENCE UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA) (T-CELL ACTIVATION PROTEIN 2) (ACT-2) (PAT 744) (H400) (SIS-GAMMA) (LYMPHOCYTE ACTIVATION GENE-1 PROTEIN) (LAG-1) (HC21) (SMALL INDUCIBLE CYTOKINE ACTIVATION GENE-1 PROTEIN) (LAG-1) (HC21) (SMALL INDUCIBLE CYTOKINE ACTIVATION GENE-1 PROTEIN) (LAG-1) (HC21) (SMALL INDUCIBLE CYTOKINE A4) (G-26 T LYMPHOCYTE-SECRETED PROTEIN).

SCYA4 OR MIP1B OR LAG1.
SEQUENCE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YOSHIMURA T., TAKEYA M., TAKAHASHI K.;
BIOCHEM. BIOPHYS. RES. COMMUN. 174:504-509(1991).
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES,
                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
MEDLINE: 89140347.
ZIPPEL P.F., BALKE J., IRVING S.
J. IMMUNOL. 142:1582-1590(1989).
                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
MEDLINE; 89071764.
LIPES M.A., NAPOLITANO
PROC. NATL. ACAD. SCI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EUTHERIA; PRIMATES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOD_RES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            73 EICADPNKEWVQ 84
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBUNIT: MONOMER OR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NEUTROPHILS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P13500;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             h 89.1%;
Similarity 83.3%;
10; Conservative
91061800.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PS00472; SMALL_CYTOKINES_CC; 1. CHEMOTAXIS; SIGNAL; INFLAMMATO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       90174947.
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35
126
148
                                                                                          ZURAWSKI S.M., MOSMANN T.R., 142:679-687(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .M., PRONK G.J., BOS J.L., RES. 18:23-34(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1MCA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      148
24
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75
126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16460
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TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ¥.
                                                                                                                                                                                                                                                                                                                                                                                                              JEANG K.-T., CHANG N.T.,
A. 85:9704-9708(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 82;
Pred. No.
1; Misma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PYRROLIDONE CARBOXYLIC SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          POTENTIAL.
                                                                                                                                                                                                                                                                                  s.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB97F97C CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                     KELLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; DB 1; L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VAN DER EB
                                                                                                                        ZURAWSKI G.;
                                                                                                                                                                                                                                                                                     ×;
                                                                                                                                                                                                                                                                                     SIEBENLIST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 148;
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                                                                                                                                                                                                                                                                                                                                                                                                                                               LEONARD W.J.;
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Query Match
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EMBL; M25316; G602455; -...

EMBL; M25316; G78018; -...

EMBL; X53683; G378018; -...

EMBL; X53682; E35870; ALT_SEO.

EMBL; X16166; G32036; -...

EMBL; M69201; G1332376; JOINED.

EMBL; M69202; G1332376; JOINED.

EMBL; M69202; G1332376; JOINED.

EMBL; M69202; G1332376; JOINED.
                HELIX
SEQUENCE
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CONFLICT
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CYTOKINE;
SIGNAL
                                           STRAND
STRAND
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STRAND
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STRAND
                                                                                                                                                                                                                                                                  PIR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BAIXERAS E., ROMAN-ROMAN S., JITSUKAWA S., GENEVEE C., MECHICHE S., VIEGAS-PEQUIONOT E., HERCEND T., TRIEBEL F.;
MOL. IMMUNOL. 27:1091-1102(1990).
                                                                                                                                                                                                                                                  PIR;
                                                                                                                                                                                                                                                                                                                                                                                                                    LODI P.J., GARRETT D.S., KUSCEWSKI J.,
LEONARD W.J., GRONENBORN A.M., CLORE G.
SCIENCE 263:1762-1767(1994).
                                    TURN
                                                                                                                                                                                                                                         PIR;
                                                                                                                                                                                                                                                           PIR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE; 91373378.
NAPOLITANO_M., MODI W.S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. MEDLINE; 91373378.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE; 89325421.
CHANG H.C., REINHERZ E.L.;
EUR. J. IMMUNOL. 19:1045-1051(1989).
                                                                                                                                                                             CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE; 9.
LODI P.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MILLER M.D., HATA S., WAAL MALEFYT R., J. IMMUNOL. 143:2907-2916(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE OF 6-92 FROM N.A. MEDLINE; 90038522.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                           -!- SUBUNIT: HOMODIMER.
-!- INDUCTION: BY MITOGENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRUCTURE BY NMR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LEONARD W.J.;
                                                                                                                                                                                                                                                                                                                                                                                                             -!- FUNCTION: MONOKINE WITH INFLAMMATORY AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BIOL.
                                                                                                                                                                                                                                                                                                                                                                          (2-2
                                                                                                                                                                                                                                                                  ; A31767;
; B30574;
                                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY: BELONGS
                                                                                                                                                                                                                       1HUM; 30-APR-94.
1HUN; 30-APR-94.
                                                                                                                                                                                                                                                                                                                                                                          (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHEM. 266:17531-17536(1991).
                                                                                                                                                                                              CHEMOTAXIS;
                                                                                                                                                                                                                                                         A31767.
B30574.
D30552.
                                    A37411
                                                                                                                                                                                             SMALL_CYTOKINES_CC;
XIS; INFLAMMATORY RES
                  10212
87.0%;
                                            7553
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                  MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CEVARIO S.J.,
                                                                                                                                                                                                                                                                                                                                                                                   THE
                                                                                             MACROPHAGE INFLAMMATORY PI
BY SIMILARITY.
BY SIMILARITY.
T -> C (IN REF. 7).
A -> S (IN REF. 6).
P -> L (IN REF. 2).
ARKLPR -> REASS (IN REF. 7).
S -> I (IN REF. 7).
S -> T (IN REF. 7).
Score 80;
                  F18E7AFD CRC32;
                                                                                                                                                                                                                                                                                                                                                                                   INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                            RESPONSE; SIGNAL; 3D-STRUCTURE.
                                                                                                                                                                                                                                                                                                                                                                                                                               TSANG M.L.S., WEATHERBEE J.A., .M.;
DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KRANGEL M.S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GNARRA J.R.,
                                                                                                                                                                                                                                                                                                                                                                                                             CHEMOKINETIC
Length 92;
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                                                                                                                                                                            PROTEIN 1-BETA
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15-JUL-1998 (REL. 36, CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE CHEMOATTRACTANT PROTEIN 4) (CK-BETA10) (NCC-1).
SCYA13 OR MCP4 OR NCC1.
                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE; 97341179.

BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOURBAGY N., APPELBAUM E., REAPE T.J., BRAWNER M., MAKWANA J., FOLEY J.J., SCHMIDT D.B., IMBURGIA C., MACNULTY D., MATTHEWS J., O'DONNELL K., O'SHANNESSY D., SCOTT M., GROOT P.H.E., MACPHEE C.; J. BIOL. CHEM. 272:16404-16413(1997).
                                                                                                                                                                                                                                                                                                                                                                  DANTE M., GIBSON A.;
SUBMITTED (AUG-1997)
-i- FUNCTION: CHEMOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GARCIA-ZEPEDA E.A., COMBADIERE C., LAVIGNE F., HAMID Q., MURPHY P.M., J. IMMUNOL. 157:5613-5626(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MCP4
                            EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EUKARYOTA;
                                                         EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE; 96235049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE; 97113354.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HOMO SAPIENS (HUMAN)
                                                   -!- MASS SPECTROMETRY: MW-9314; MW_ERR-30; METHOD-MALDI; RANGER ASS SPECTROMETRY: MW-85750; MW_ERR-30; METHOD-MALDI; RANGER ASS SPECTROMETRY: MW-8575; MW_ERR-30; METHOD-MALDI; RANGER ASS SPECTROMETRY: MW-8575; MW_ERR-30; METHOD-MALDI; RANGER INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.

-!- THISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTITY THYMUS, COLON, LUNG, TRACHER, STOMACH AND LYMPH NODE. LOUSEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.

-!- THIS PROTEIN CAN BIND HEPARIN.

-!- PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA (FNPQGLA)MCP-4 ARE PRODUCED BY DIFFERENTIAL SICHAL CLEAV, (LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.

-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL C-C) (CHEMOKINE CC).
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                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE-FET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       UGUCCIONI M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 72 QVCADPSESWVQ ::|||||||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EXP.
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                                                                                                                                                                                                                                                           MITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCY
BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUG
CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMAT
MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTES
WALL DURING THE DISEASE PROCESS OF ARTHEROSCLEROSIS. MAY PLAY
EVALE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSE
EXOGENOUS PATHOGENS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          _HUMAN
                            ; AC002482; G2340091;
601391; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KREIDER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
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                PS00472;
   CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    , LOETSCHER P., FORSSMANN ER B., GAROTTA G., THELEN 183:2379-2384(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12
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SMALL_CYTOKINES_CC; 1.
XIS; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AND SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. 2.34e-05; 2; Mismatches 1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ROTHENBERG
LUSTER A.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22-33.
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BAGGIOLINI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .; X.E.,
                                                                                       FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                            CHRONICALLY EXPOSED TO
                                                                                                                 ISOFORMS (LA)MCI
SIGNAL CLEAVAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
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                                                                                                                                                                                                                                                                                         THE ARTERIAL MAY PLAY A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    н.,
                                                                                                                                (LA)MCP-4
                                                                                                                                                                           INTESTINE,
                                                                                                                                                                                                                                   RANGE-17-98
RANGE-22-98
                                                                                                                                                                                                                    RANGE=24-98
                                                                                                                                                                                                                                                                                                                                                                  LYMPHOCYTES,
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Best Local S
Matches 1
-!- SUBUNIT: MONOMER.
-!- PTM: O-GLYCOSYLATED.
-!- SIMILARITY: BELONGS T
C-C) (CHEMOKINE CC).
EMBL; X72308; G313708; AL
EMBL; X72309; -; NOT_ANNO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOD_RES
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                               MEDLINE; >>>> P. GUILLEMUL ....
MINTY A., CHALON P., GUILLEMUL C., RAW
AGAZIN M., MILOUX B., MINTY C., RAW
SHIRE D., FERRARA P., CAPUT D.;
SHIRE D., FERRARA P., CAPUT D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIGNAL
CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P80098;
01-DEC-1992 (REL. 24, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3)
                                                             MEDILINE; 97263733.

MEDNIER S., BERNASSAU J.-M., GUILLEMOT J.-C., FERRARA P.,
BIOCHEMISTRY 36:4412-4422(1997).

-:- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES
EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE A
ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. T
                                                                                                                                                                                                                                                                                                                                                                                                                                                             SCYA7
                                                                                                                                                                                                                                                                                                                                                                                                                               HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHEMOATTRACTANT PROTEIN 3) (NC28)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MCP3_HUMAN
                                                                                                                                              STRUCTURE BY NMR, AND MEDLINE; 97053697.
KIM K.-S., RAJARATHNAN FEBS LETT. 395:277-28;
                                                                                                                                                                                            MEDLINE; 92308855.
VAN DAMME J., PROOST P., LENA
J. EXP. MED. 176:59-65(1992).
                                                                                                                                                                                                                          TISSUE=OSTEOSARCOMA;
                                                                                                                                                                                                                                                                                                                                           OPDENAKKER G., FITEN
                                                                                                                                                                                                                                                                                                                                                                                            OPDENAKKER
                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A., MEDLINE; 93213290.
                                                                                                                            STRUCTURE BY NMR
                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
MEDLINE; 93305913.
                                                                                                                                                                                                                                                                                                                         GENOMICS
                                                                                                                                                                                                                                                                                                                                   LAUREYS G.,
                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. MEDLINE; 94375065.
                                                                                                                                                                                                                                                                                                                                                                                  BIOCHEM.
                                                                                                                                                                                                                                    SEQUENCE OF 30-99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      72
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                                                         CAN BIND HEPARIN.
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10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                 ER G., FROYEN G., FITEN BIOPHYS. RES. COMMUN.
                                                                                                                                                                                                                                                                                                                        3., VAN DAMME J.;
21:403-408(1994).
                                                                                                                                              395:277-282(1996).
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                                                                                                                                                       RAJARATHNAM K.,
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 NOT_ANNOTATED_CDS
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10986
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., MINTY C., RAMOND P.,
CAPUT D.;
                                                                                                                                                                                                                                                                                                                                           P.,
                                                                                                                                                                            SUBUNIT
           ALT_INIT
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                             THE
                                                                                                                                                        CLARK-LEWIS
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Pred. No. 2.34e-05;
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DF52F6EC
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PYRROLIDONE CARBOXYLIC
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                          VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                             INTERCRINE
                                                                                                                                                                                                                                                                                                                                                                                  191:535-542(1993)
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                                                                                                                                                                                                                                                                                                                                           FROYEN
                                                                                                                                                                                                       J.-P.,
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                                                                                                                                                                                                        OPDENAKKER
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                             BETA
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                                                                                                                                                        SYKES B
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                             FAMILY
                                                                                                                                                                                                                                                                                                                                                                                           VAN DAMME
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PA N., LUP
                                                                                                                                                                                                                                                                                                                                           ROY
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LUPKER
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                             (SMALL
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                                                                            -TUMOR
                             CYTOKINE
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RESULTANT RESULT
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Best Local S
Matches
                                                                                                                                    Query Match
Best Local
                                                                                                       Matches
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01-NOV-1995 (REL. 32, L
15-JUL-1998 (REL. 36, I
MONOCYTE CHEMOTACTIC PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; X71087; G288399; EMBL; X71087; G288398; FEMBL; X71087; G288397; FEMBL; X71087; G288397; FOM CONTROL OF THE CONTROL OF TH
                                                                                                                                                                                                               DISULFID
DISULFID
CARBOHYD
SEQUENCE
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Q08782;
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CHAIN
MOD_RES
DISULFID
DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CONFLICT
                                                                                                                                                                                                                                                                                                                                                                             CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NEUTROPHILS.

1. SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).

1. SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE CC-C) (CHEMOKINE CC).

EMBL; L04985; G349821; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAVIA PORCELLUS (GUINEA PIG).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                 MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN=Z; TISSUE=SPLEEN; MEDLINE; 93267104.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SCYA2 OR MCP1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YOSHIMURA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NFLAMMATORY
                            71 EVCADPTQKWVQ 82
                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IMMUNOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IMMUNOL. 150:5025-5032(1993).
FUNCTION: CHEMOTACTIC FACTOR THAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAVPO
EICADPSEEWVO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity 75.0%, 9; Conservative
                                                                                                       Similarity 66.78
8; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-OCT-97
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580
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12
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120
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75.0%;
                                                                                                                              84.8%;
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73
97
                                                                                                                                                                                                             13741 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CREATED)
, LAST SEQUENCE UPDATE)
, LAST ANNOTATION UPDATE)
, LAST ANNOTATION UPDATE)
PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ALT_INIT.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           _CYTOKINES_CC;
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                                                                                                                              Score
Pred.
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MONOCYTE CHEMOTACTIC PROTEIN 1.
                                                                                                                                                                                                       POTENTIAL.
22FAD257 CRC32;
                                                                                                                                                                                                                                                               BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                    PYRROLIDONE CARBOXYLIC ACID (BY SIMILARITY).
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MISSING (IN REF. 4).
7502E19C CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MONOCYTE CHEMOTACTIC PI
PYRROLIDONE CARBOXYLIC
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   POTENTIAL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                               INFLAMMATORY RESPONSE;
                                                                                                     re 78; DB 1; L
1. No. 6.60e-05;
Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
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; GLYCOPROTEIN;
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2.34e-05;
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                                                                                                                                                    Length 120;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                     Indels
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SSEEDDDAN
       SULT

) MIB_RABIT

C P46632;

C P46632;

T 01-NOV-1995 (REL. 32, CREATED)

DT 01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)

DT 01-CCT-1996 (REL. 34, LAST ANNOTATION UPDATE)

MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (M)

MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (M)
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Best Local S
Matches
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EMBL; M19681; G387168
PIR; A30209; A30209.
PIR; A30861; A30861
PIR; S16226; S16226.
                                                                                                                                                                                                                                                   DISULFID
DISULFID
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MCP1_MOUSE STANDARD; PRT; 148 AA.

P10148;

01-MAR-1989 (REL. 10, CREATED)

01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)

15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)

MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (PLATELET-DERIVED
                                                                                                                                                                                                                                                                                                            CHAIN
MOD_RES
                                                                                                                                                                                                                                                                                                                                                PROSITE; P
CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GROWTH FACTOR-INDUCIBLE PROTEIN JE). SCYA2 OR MCP1 OR JE. MUS MUSCULUS (MOUSE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VAN DAMME J., DECOCK B., BERTINI R., PUT W., OPDENAKKER G., MANTOVANI A.; EUR. J. BIOCHEM. 199:223-229(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE; 89093129.
KAWAHARA R.S., DEUEL T.F.;
J. BIOL. CHEM. 264:679-682(1989).
  ORYCTOLAGUS CUNICULUS (RABBIT)
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-1- INDUCTION: BY PLATELET-DERIVED GROWTH FACTOR.
-1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE OF 26-42.
MEDLINE; 91293127.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE; 8823
ROLLINS B.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. MEDLINE; 89093129.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EUKARYOTA; METAZOA;
EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                      SIGNAL
                                                                                                                                                                                                                                                                                                                                                                           Ġ
                                                                                                                                                                                                                                                                                                                                                                                     HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROC. NATL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  · I - FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS
                                                                                                                                                                                73
                                                                                                                                                                                                                                                                                                                                                                                                                                 C-C) (CHEMOKINE CC).
L; J04467; G387169; -.
L; M19681; G387168; -.
                                                                                                                                                                                                                                                                                                                                                              MGI:98259; SCYA2.
ITE; PS00472; SMAI
                                                                                                                                                                              EVCADPKKEWVQ
                                                                                                                                                        EICADPSEEWVQ
                                                                                                                                                                                                                   Similarity
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                                                                                                                                                                                                                                                                                                                                                 CHEMOTAXIS;
                                                                                                                                                                                                                                                     126
148
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                                                                                                                                                                                                      84.8%;
larity 75.0%;
Conservative
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CAD. SCI.
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                                                                                                                                                                               84
                                                                                                                                                                                                                                                                                                                                               SMALL_CYTOKINES_CC; 1.
KIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
                                                                                                                                                                                                                                                                                                            23
148
24
                                                                                                                                                                                                                                                     126
16326
                                                                                                                                                                                                                                                                             59
75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ФM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S.A.
                                                                                                                                                                                                                                                      Œ;
                                                                                                                                                                                                                                                                          BY SIMILARITY.

MONOCYTE CHEMOTACTIC PROPYRROLIDONE CARBOXYLIC ASIMILARITY).

BY SIMILARITY.

BY SIMILARITY.
                                                                                                                                                                                                                  Score 78; DB 1;
Pred. No. 6.60e-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STILES C.D.;
. 85:3738-3742(1988).
VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                       ŗ
                                                                                                                                                                                                                                                     B7572BBC CRC32;
                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CONINGS R.,
                                                                                                                                                                                                                            Length 148;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MONOCYTES, BUT
                                                (MIP-1-BETA) (IMMUNE
                                                                                                                                                                                                                                                                                                            PROTEIN 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENAERTS J.-P.,
                                                                                                                                                                                                       Indels
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                                                                                                                                                                                                      Gaps
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RESULT

ACC PICE SEASON

RAP S
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Best Local s
Matches
                                                                                                                                                                                     SEQUENCE FROM N.A. MEDLINE; 90290466. SHYY Y.J., LI Y.S., BIOCHEM. BIOPHYS. RE
                                                                               MEDLINE;
CHANG H.C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE;
ROLLINS E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JAN-1990 (REL. 13, CREATED)
01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MCP1
SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
MEDLINE; 89165862.
FURUTANI Y., NOMURA H.,
LARSEN C.G., OPPENHEIM
                                                                                                                                                                                                                                                                                                                                                      YOSHIMURA T., YUHKI
LEONARD E.J.;
                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. MEDLINE; 89153605.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
MEDLINE; 90097880.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BIOCHEM. BIOPHYS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SCYA2 OR MCP1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (MONOCYTE CHEMOATTRACTANT PROTEIN 1) (HCl1) (SMALL INDUCIBLE CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN-NEW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EUTHERIA; LAGOMORPHA
                               5
                                                                                                                                     EQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (BY SIMILARITY).
SUBUNIT: HOMODIMER (BY
SIMILARITY: BELONGS TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          _HUMAN
                                                   IMMUNOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -C) (CHEMOKINE CC).
D17402; G599578; -
TE; PS00472; SMALL_
                                                                               .o.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B.J., STIER P., ERNST T.,
LL. BIOL. 9:4687-4695(1989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                FROM N.A.
91207938.
C., HSU F., FREEMAN G.,
UNOL. 1:388-399(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
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                                                                                                                                                                                                                                                                                                                          244:487-493(1989).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Z
A
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                                                                                                                                                                                        RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  83.7%;
                                                                                                                                                                                     KOLATTUKUDY
ES. COMMUN. 1
                                                                         FREEMAN G.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23
92
58
74
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMMUN. 159:249-255(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NOTAKE M., OYAM?
J.J., MATSUSHIMA
                                                                                                                                                                                                                                                                                                                                                                                   MOORE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WW.
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THE INTERCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MUTAKAMI K., OHKAWARA S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 77;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                S.K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A629AB2D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                  Y P.E.;
169:346-351(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INTERCRINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WONG
                                                                               GRIFFIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OYAMADA Y.,
                                                                                                                                                                                                                                                                                                                                                                             APPELLA E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 1; Lens
1.10e-04;
-has 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  G.G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AND
                                                                         J.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BETA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CHEMOKINETIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FUKUI T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                LERMAN M.I.,
                                                                               REINHERZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YOSHINAGA M.;
                                                                      E.L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YAMADA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROPERTIES
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MEDLINE; 94150478.
LI Y.S., SHYY Y.J., V
KOLATTUKUDY P.E.;
MOL. CELL. BIOCHEM.
             EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                       MEDLINE; 94253189.
ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.
J. BIOL. CHEM. 269:15918-15924(1994).
                                                                                                                                                                                                                    KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
FEBS LETT. 395:277-282(1996).
-i- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES
CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID
ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT
OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE; 96234959.
HANDEL T.M., DOMAILLE P.J.;
BIOCHEMISTRY 35:6569-6584(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE; 97143
LUBKOWSKI J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE OF 24-99.
MEDLINE; 89184525.
ROBINSON E.A., YOSHIMURA T., LEONARD SHABANOWITZ J., HUNT D.F., APPELLA E. PROC. NATL. ACAD. SCI. U.S.A. 86:1850
                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE; 96195223.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GRONENBORN A.M., CLORE G.M.;
PROTEIN ENG. 4:263-269(1991).
                                                                                                                                                                                                                                                                                                                                          SUBUNIT.
                                                                                                                                                                                                                                                                                                                                                                                                         MUTAGENESIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRUCTURE BY NMR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 29-53 AND 82-92.
MEDLINE; 90211336.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. MEDLINE; 92095166.
                                                                                                                                                                                                                                                                                                                              MEDLINE; 97053697
                                                                                                                                                                                                                                                                                                                                                                                                                                                WEBER M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BIOCHEM. BIOPHYS. RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADV. EXP. MED.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    K-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3D-STRUCTURE MODELLING
                                                                                                                                                                                                                                                                                                                                                                                                                                  EXP. MED.
                                                                                                                              ATHEROSCLEROSIS.
SUBURIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.
SUBURIT: MONOMER OR THE N-TERMINUS CAN REGULATE REC.
PYM: PROCESSING AT THE N-TERMINUS CAN REGULATE REC.
CELL SELECTIVITY. DELETION OF THE AMINO- TERMINAL
IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL (
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY
C-C) (CHEMOKINE CC).
M31626; G386961; JOIN

M31625; G386961; JOIN

M31625; G386961; JOIN

M24545; G307163; -...

M28226; G338009; -...

X14768; G34514; -...

M37719; G487124; -...

M37719; G48707; -...

M28225; G338007; JOIN

M28224; G338007; JOIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OWSKI J., BUJACZ G., DOMAILLE P.J., STRUCT. BIOL. 4:64-69(1997).
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B
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                                                                                                                                                                                                                                                                                                                                                                                                                                              UGUCCIONI M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CONINGS
                                                                                                                                                                                                                                                                                                                                                                                                                                  JCCIONI M., BAGGIOLINI M., CLARK-LEWIS 183:681-685(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BIOL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      O E.J.;
305:47-56(1991).
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                                                                                         JOINED.
  JOINED.
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                                                                                                                                           INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                               в.J.;
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                                                                                                                                                                                   RECEPTOR
                                                                                                                                                        CEPTOR AND TARGET RESIDUE CONVERTS CHEMOATTRACTANT.
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Best Local
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EMBL; S71513; G240868; -
EMBL; A71786; G641145; -
PIR; A35474; A35474; A35474; PIR; S03339; S03339; PDB; 1DOK; 12-MAR-97. PDB; 1DOM; 14-CCT-96. PDB; 1DON; 14-CCT-96. PDB; 1DON; 14-CCT-96.
                                                                                                              KUMAR A.G., BALLANTYNE C.M., MICHAEL L.H., KUKIELKA G.L., YOUKER K.A.
LINDSEY M.L., HAWKINS H.K., BIRDSALL H.H., MACKAY C.R., LAROSA G.J.,
ROSSEN R.D., SMITH C.W., ENTMAN M.L.;
CIRCULATION 95:693-700(1997).
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY
REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.
MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE
REPERFUSED MYOCARDIUM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         P52203;
01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHAIN
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TISSUE-JUGULAR VEIN ENDOTHELIAL;
MEDLINE; 97176620.
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CYTOKINE;
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                                                                                                                                                                                                                                                                                                                                                                                         EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                         SCYA2 OR MCP1.
CANIS FAMILIARIS (DOG)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MCP1_CANFA
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SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIB INDUCTION: BY TNF-ALPHA.
TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS, AND INFILTRATING LEUKOCYTES.
SIMILARITY: BELONGS TO THE INTERCRINE BET C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EICADPSEEWVQ
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                                                                                                                                                                                                                                                                                                                                                                       CARNIVORA.
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MISSING: LOSS OF ACTIVITY.
MISSING: 90% REDUCTION IN ACTIVITY.
MISSING: 83% REDUCTION IN ACTIVITY.
D-A: 90% REDUCTION IN ACTIVITY.
N-A: 50% REDUCTION IN ACTIVITY.
R->F: 95% REDUCTION IN ACTIVITY.
S-O: 40% REDUCTION IN ACTIVITY.
Y-D: LOSS OF ACTIVITY.
T-SL: 90% REDUCTION IN ACTIVITY.
P-L: 105S OF ACTIVITY.
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Pred.
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              INTERCRINE BETA FAMILY (SMALL CYTOKINE
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1.10e-04;
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                                                        VEINS
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                                                                                              (BY SIMILARITY).
                                                        AND
                                                                                                                                                                                                                                              G.L., YOUKER K.A., R., LAROSA G.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99;
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Matches
                                                        MI1A_RAT
P50229;
01-OCT-1996
01-OCT-1996
01-NOV-1997
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DISULFID
DISULFID
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MIIB_CHICK STANDARD; PRT; 90 AA. 090826; 01-NOV-1997 (REL. 35, CREATED) 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE) 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE) MACROPHAGE INFLAMMATORY PROTEIN 1-BETA HOMOLOG GALLUS GALLUS (CHICKEN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                    01-0CT-1996 (REL. 34, CREATED)
01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA).
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RATTUS NORVEGICUS (RAT)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (BY SIMILARITY).
-!- SUBUNIT: HOMODIMER (BY
-!- SIMILARITY: BELONGS TO
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PETRENKO O., ERIPETTO P.J.;

SUBMITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.

-I- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; U29653; G1144186; -.
PROSITE; PS00472; SMALL_CY
CYTOKINE; CHEMOTAXIS; SIGN
SIGNAL 1 23
                        SCYA3 OR MIP1A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL;
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PETRENKO O., ISCHE
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L34553; G509596; -
                                                                                                                                                                                                                                                                                                              Similarity
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larity 58.3%;
Conservative
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                                                                                                                                       STANDARD;
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KIS; SIGNAL; INFLAMMATO
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72
87
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THE INTERCRINE
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Pred. No. 1.
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BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 1.
PYRROLIDONE CARBOXYLIC ACID (BY
SIMILARITY).
BY SIMILARITY.
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MACROPHAGE INFI
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B5637084 CRC32
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Pred. No. 1.10e-04
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1.84e-04;
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                   MCP1_PIG
P42831;
01-NOV-1995 (
01-NOV-1995 (
15-JUL-1998 (
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DISULFID
CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; U224
EMBL; U064
PROSITE; E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAKAGAWA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;

BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).

-i-FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.

HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPHILS,

BASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LUNG TWP-ALPHA

PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND

MAY FUNCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE

MAY FUNCTION OF TNF-ALPHA WHICH IN TURN UP-REGULARS VASCULAR

PRODUCTION OF TWP-ALPHA WHICH IN TURN UP-REGULARS VASCULAR
                                                                                                                                                                                                                                                                            MONOCYTE
SCYA2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE; 95298037.
SHI M.M., GODLESKI J.J., PAULAUSKIS J.D.;
BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
                                                                                                                                               SEQUENCE FROM N.A. MEDLINE; 94183284.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE; 9523
SHANLEY T.P.,
                          TISSUE-BRAIN;
ZACH O.R.F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF 24-57.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN-LONG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-CD-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA; EUTHERIA; RODENTIA.
    SUBMITTED
                                                                                                        BIOCHEM. BIOPHYS.
                                                                                                                                                                                                               EUTHERIA;
                                                                                                                                                                                                                                                      SUS SCROFA (PIG)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-WISTAR;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE; 96183056
                                                               EQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                71 QICADPKETWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 EICADPSEEWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IMMUNOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY: BELONGS
C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                            14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BINDS HEPARIN.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           U22414; G790633; -.
U06435; G459150; -.
TE; PS00472; SMALL_C
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                                                                                                                                                                                                                                                                                               995 (REL. 32, CREATED)
995 (REL. 32, LAST SEQ
998 (REL. 36, LAST ANN
CHEMOTACTIC PROTEIN 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ONG EVANS; TISSUE-LUNG; 95238980.
                                                                                                                                                                                                               ARTIODACTYLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OCHEMOTAXIS; INFLAMMATORY RESPONSE;
    (JUL-1994)
                                                                                                                              KNOKE I.,
                                                                                                                                                                                                                                    METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            92
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154:4793-4802(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE-LUNG;
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92
57
73
57
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, LAST ANNOTATION UPDAT
PROTEIN 1 PRECURSOR (M
    ō
                                                                                                                            KLAUDINY J.,
                                                                                                        COMMUN.
EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MACROPHAGE INFLAMMATORY F
BY SIMILARITY.
BY SIMILARITY.
A -> T (IN REF. 2).
C -> W (IN REF. 2 AND 3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 76; DB 1; 1
Pred. No. 1.84e-04
                                                                                                                                                                                                                                  VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          F48CF89F
                                                                                                        J., WEMPE F., WUTTKE
199:962-968(1994).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                             UPDATE)
SOR (MCP-1).
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                                                                                                                                                                                                                                    TETRAPODA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 92;
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                                                                                                                                                                                                                                  MAMMALIA;
                                                                                                                            SCHEIT K.H.;
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Best Local Similarity
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MCPB_BOVIN
P80343;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
          MIIB_RAT STANDARD; PRT; 92 AA.
P50230;
01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA).
SCYA4 OR MIP1B.
                                                                                                                                                                                                                                                                                                  MEDLINE; 95034774.

MEDLINE; 95034774.

LENAERTS J.-P., VAN DAMME J.;

BIOCHEMISTRY 33:13406-13412(1994).

-i- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES,

NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. AI
THE RELEASE OF GELATINASE B. THIS PROTEIN CAN BIND HEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL;
                                                                                                                                                                                                                              NON_TER
                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE.
TISSUE-KIDNEY;
                                                                                                                                                                                                                                                                                                                                                                                                              BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                    01-FEB-1995 (REL. 31, CREATED)
01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UDDAT
MONOCYTE CHEMOTACTIC PROTEIN 1B (MCP-1B) (F
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                                                                                                                                                                                                                                                  CYTOKINE;
                                                                                                                                                                                                                                                            PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                     EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOD_RES
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  RATTUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL;

    -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES,

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C-C) (CHEMUNAN--
BL; Z48479; G683717; -.
BL; Z79416; G873313; -.
ROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
ROSITE; PS00472; SIGNAL; INFLAMMATORY RESPONSE.
BY SIMILARITY.
BY SIMILARITY CHEMOTACTIC PRO
                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73 EICAEPKQKWVQ
                                                                                                                                          48 EICAEPKXXWVQ 59
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 EICADPSEEWVQ 12
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                                                                                     16
                                                                                                                                                                                                                                                                                 PTM: THE N-TERMINAL IS BLOCKED.
SIMILARITY: BELONGS TO THE INTERCRINE
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                                                                                                                    EICADPSEEWVQ
NORVEGICUS (RAT)
                                                                                                                                                                                                                                                            (CHEMOKINE CC).
PS00472; SMALL_CYTOKINES_CC;
                                                                                                                                                                                                                                                  CHEMOTAXIS; HEPARIN-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                      ARTIODACTYLA.
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35
99 AA;
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10
74 AA;
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                                                                                                                                                              Conservative
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                                                                                                                                                                         80.4%;
66.7%;
                                                                                                                                                                                                         8360 MW;
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66.7%;
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75
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 76; DB 1;
Pred. No. 1.84e-04
2; Mismatches
                                                                                                                                                                        Score 74; DB 1; I
Pred. No. 5.06e-04;
                                                                                                                                                                                                       BY SIMILARITY.
BY SIMILARITY.
66172F08 CRC32;
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BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                 VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ECC3AFB4
                                                                                                                                                                                                                                                                                                                                                                                                                                   TATION UPDATE) (MCP-1B) (FRA
                                                                                                                                                              Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                     (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                 TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                   BETA
                                                                                                                                                                                  Length 74;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                  FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROTEIN 1.
IC ACID (BY
                                                                                                                                                               Indels
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(SMALL CYTOKINE
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Best Local S
Matches
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Best Local
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DISULFID
SEQUENCE
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EUTHERIA; RO
[1]
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P49873;
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DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                    SIGNAL
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01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN-LONG EVANS; TISSUE-LUNG;
JONES M.L., SHANLEY T.P., SCHMAL H., FRIEDL H.P., WARD P.A.;
SUBMITTED (FEB-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
-!- SUBUNIT: HOMODIMER (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUS SCROFA (PIG).
EUXARYOTA; METAZOA; CHO
EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                              MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                  -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; U06434; G459148; -
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                     EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BIOCHEM. BIOPHYS. RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HOSANG K.K., KNOKE I.I., SCHEIT K.K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. MEDLINE; 95091716.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CHEMOATTRACTANT PROTEIN 2).
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                                                                                                                                                                                                                                                                                                                              PROSITE;
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                                      73 EVCADPOOKWVO 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   72 QICADPSEPWV
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                                                                                                                                                                                                                                                                                                                                                                                                                                 FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN CAN BIND HEPARIN.
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                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY: BELONGS C-C) (CHEMOKINE CC)
                                                                                                                                                                                                                                                                                                                                                                                        SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM SIMILARITY: BELONGS TO THE INTERCRINE BETA FAM
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EICADPSEEWVQ
                                                                                                                                                                                                                                                                                 C) (CHENNALL CYTOKINES_CC; 1. TE; PS00472; SMALL_CYTOKINES_CC; 1. TE; PS00472; SMALL_CYTOKINES_CC; 1. PROPERTY SIGNAL; HEPARIN-BI PY SIMILARI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OR MCP
                                                                               Similarity
8; Conse
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2 AA;
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                                                                                                                                                                                  34
35
                                                                             Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KLAUDINY J.J., WEMPE F.F.,
                                                                                                Score 74;
Pred. No.
                                                                             Pred.
2; 1
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                                                                                                                                                                              MONOCYTE CHEMOTACTIC PROTEIN 2.
PYRROLLDONE CARBOXYLIC ACID (BY SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
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BY SIMILARITY.
                                                                                                                                                                                                                                                                                   HEPARIN-BINDING;
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BY SIMILARITY
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                                                                               Mismatches
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No. 5.06e-04;
                                                                                              DB 1; Le
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                                                                                                                                                                                                                                                                                                                                                                                        ILIBRIUM (BY
BETA FAMILY
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                                                                                                                    Length 99;
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                                                                                                                                                                                                                                                                                                        INFLAMMATORY RESPONSE
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Best Local S
Matches
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P97545; 008780;
15-JUL-1998 (REL. 3
15-JUL-1998 (REL. 3
15-JUL-1998 (REL. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MCP2_BOVIN STAN
Q09141;
Q10-NOV-1995 (REL. 3
Q1-NOV-1995 (REL. 3
15-JUL-1998 (REL. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISULFID
DISULFID
SEQUENCE
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01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE CHEMOATTRACTANT PROTEIN 2).
            PROSITE; | CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (1)
SEQUENCE FROM N.A.
MEDLINE; 94114084.
WEMPE F., HANES J., SCHEIT K.H.;
THE HIOL. 13:1-8(1994).
                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. WILLIAMS C.M., NEW FLANAGAN B.F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                  EOTAXIN PRECURSOR (EOSINOPHIL RATTUS NORVEGICUS (RAT).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL;
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EOSINOPHIL; CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                  SUBMITTED
                                                                                                                                                                                                                                                                                                                                                                                                               EUTHERIA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SCYA8 OR MCP2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PS00472; SMALL_CYTOKINES_CC; 1.; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (CHEMOKINE CC)
                                                                                                                                                                                                                                                                                                                (DEC-1996)
                                                                                                                                                                                                                                                                                                                                                                                                               RODENTIA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36, CREATED)
36, LAST SEQUENCE UPDATE)
36, LAST ANNOTATION UPDATE)
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75
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24
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                                                                                                                                                                                                                                                                                                                EMBL/GENBANK/DDBJ DATA BANKS
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                                                                                                                                                                                                                                                                                                                                                    WILSON S.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 74; DB 1; 1
Pred. No. 5.06e-04
3; Mismatches
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BY SIMILARITY.
9BA2CD26 CRC32;
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  GLYCOPROTEIN;
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                                                                                                                                                                                                                                                                                                                                                      COLEMAN J.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROTEIN)
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  SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROTEIN 2.
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Best Local
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01-FEB-1996 (REL. 3
15-JUL-1998 (REL. 3
EOTAXIN PRECURSOR (
                                                                                                                                                        INFLAMMATORY RESPONSE.
SIGNAL 1 23
CHAIN 24 97
DISULFID 32 57
DISULFID 33 73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
CONFLICT
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DISULFID
                                                                                                                                                        DISULFID DISULFID
                                                                                                                                                                                                                                                                                                             -!- PTM: O-GLYCOSYLATED (PROBABLE).
-!- SIMILARITY: BELONGS TO THE INTE
C-C) (CHEMOKINE CC).
EMBL; U26426; G995911; -.
EMBL; U40672; G1113937; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ++
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GONZALO J.-A., JIA G.-Q., AGUIRRE JENKINS N.A., LIN G.-S., KATZ H., GUTIERREZ-RAMOS J.-C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN=C57BL/6J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROC. NATL. ACAD.
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EUKARYOTA; MI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EOTA_MOUSE
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SIGNAL
                                                                                                                                                                                                 CHAIN
                                                                                                                                                                                                                  SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE; 96158746.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IMMUNITY 4:1-14(1996).

-i- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 71 EICADPKKKWVQ
71 EICADPKKKWVQ 82
                                                         Local Similarity es 9; Conse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \vdash
                                                                                                                                                                                                                                                                                                                                                                                                       SUBCELLULAR LOCATION: EXTRACELLULAR.
TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
EXPRESSION INDUCTIOLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL
CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
INDUCTION: BY INTERFERON GAMMA AND LIPOPOLYSACCHARIDE (LPS).
                                                                                                                                                                                                                                                                         MGI:103576; SCYA11.
ITE; PS00472; SMALL_CYTOKINES_CC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EICADPSEEWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IS (MOUSE).
METAZOA; CHORDATA;
                                                                                                                                                                                                                                                        CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 23
24 97
32 57
32 73
94 94
                                                         Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3324
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LUSTER A.D., SCI. U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE-LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             33, CARATED)
33, LAST SEQUENCE UPDATE)
36, LAST ANNOTATION UPDATE)
(EOSINOPHIL CHEMOTACTIC PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12
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                                                                                                                                      10893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         79.38;
                                                                             79.3%;
75.0%;
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Pred.
                                                         Score
Pred.
0; M
                                                                                                                                EOTAXIN.
BY SIMILARITY.
BY SIMILARITY.
F85A96BC CRC32;
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L -> S (IN REF.
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                                                                                                                                                                                                                    POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LEDER P.;
92:8960-8964(1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERTEBRATA; TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05B4ED45 CRC32
                                                                                                                                                                                                                                                                                                                                                                           INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                       re 73; DB 1; Len
1. No. 8.35e-04;
Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             V., FRIEND D., COYLE A.J.,
LICHTMAN A., COPELAND N.G.,
                                                                                                                                                                                                                                                      GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73; DB 1; I
No. 8.35e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A
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                                                                                           Length 97;
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                                                                                                                                                                                                                                                        SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      THIS PROTEIN
A PROMINENT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KOPF M.,
                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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RESULT
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                MIP4_HUMAN STANDARD; PRT; 89 AA.

P55774;

P55774;

P1 01-NOV-1997 (REL. 35, CREATED)

P1 01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)

P1 15-UL-1998 (REL. 36, LAST ANNOTATION UPDATE)

P2 MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PUSE ACTIVATION-REGULATED CHEMOKINE) (CC CHEMOKINE PARC) (ALE ACTIVATED MACROPHAGE ASSOCIATED CC CHEMOKINE 1) (AMAC-1 E ACTIVATED MACROPHAGE ASSOCIATED CC CHEMOKINE 1) (AMAC-1 SCYALS OR MIP4.

SCYALS (HUMAN).

SUMANYOTA; METAGOA; CHORDATA; VERTEBRATA; TETRAPODA; MACCOTTENTAL PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MCP5_MOUSE
Q62401;
01-NOV-1997
01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
MEDLINE; 97079149.
JIA G.-Q., GONZALO J.A., LLOYD C., KREMER
WERSHIL B.K., GUTIERREZ-RAMOS J.C.;
J. EXP. MED. 184:1939-1951(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C-C) (CHEMOKINE CC).
EMBL; U50712; G1477582; -.
EMBL; U66670; G1881583; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              J. EXP. MED. 185:99-109(1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. MEDLINE; 97149438.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SCYA12 OR MCP5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHEMOKINE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP-5)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SARAFI M.N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGD; MGI:108224; SCYA12.
PROSITE; PS00472; SMALL_CYTOKINES_CC;
                                                                                                                                                                                                                                                                                                                                                                                           72 EICADPKEKWV
                                                                                                                                                                                                                                                                                                                                                                   1 EICADPSEEWV 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EICADPSEEWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  104
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GARCIA-ZEPEDA E.A., MACLEAN J.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ΑA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                79.3%;
81.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                74
11659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL; INFLAMMATORY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MΨ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 73; DB 1;
Pred. No. 8.35e-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08FA6C35
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                               TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ľ.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESPONSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      F
                                                                                                                                                                                                                                                                                                                                                                                                                                                           2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CHARO I.F.,
                                                                                                                 ARC) (ALTERNATIVE (AMAC-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ľ.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (MCP-1 RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                           (PULMONARY AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MARTINEZ A.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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RESULT IN A CONTROL OF THE CONTROL O
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                     EOTA_HUMAN STANDARD; PRT; 97 AA. P51671; P50877; Q92490; Q92491; 01-OCT-1996 (REL. 34, CREATED) 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE) 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE) EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHAIN
DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE-AORTA, AND MEDLINE; 97376836.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LIH., RUBEN S.;
PATENT NUMBER US5504003.
[2]
                                                                                                                                                                                                                                                                                                 HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; PRIMATES.
                                                                                                                                                                                            GARCIA-ZEPEDA E.A.,
LUSTER A.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; AB000221; D1022520; -.
EMBL; Y13710; E321838; -.
PROSITE; PS00472; SMALL_CYTOI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HIESHIMA K., IMAI T., BABA M., SHOUDAI K., ISHIZUKA K.,
NAKAGAMA T., TSURUTA J., TAKEYA M., SAKAKI Y., TAKATSUKI K.,
MIURA R., OPDENAKKER G., VAN DAME J., YOSHIE O., NOMIYAMA H.;
J., IMMUNOL. 159:1140-1149(1997).
                                          SMITH H., S
MACKAY C.R.
                                                                                PONATH P.D.,
                                                                                                                                                                                                                                       SEQUENCE FROM N.A. MEDLINE; 96181758.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUBMITTED (AUG-1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.,
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                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WELLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              68 QICADPNKKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ILLS T.N.C., PETISCH M.C.;
LEUKOC. BIOL. 61:545-550(1997).

- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LYMPHOCYTES BUT NOT MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN B CELL MIGRATION INTO B CELL FOLLICLES IN LYMPH NODES.

- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN THE LUNG. A LOW LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NODE THYMUS AND APPENDIX.

- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).

- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOX)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                      CLIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 EICADPSEEWVQ 12
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                                                                                                                                                                             MED.
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V., MUELLER C., P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                 96189937.

D1. QIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., D1., QIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., CHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAMOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ,,
                      INVEST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (CHEMOKINE CC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97275308
                                                                                                                                                                        2:449-456(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1
21
30
31
3AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N.A.
                    97:604-612(1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SMALL_CYTOKINES_CC; 1.
XIS; INFLAMMATORY RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 79
                                                                                                                                                                                                                                                                                                                                                                                     (EOSINOPHIL CHEMOTACTIC PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               70
9849 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                78.3%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AND
                                                                                                                                                                                                                 ROTHENBERG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       54
54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POLITZ O., HAKIY N
EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PARTIAL SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 72; DB 1; I
Pred. No. 1.38e-03;
2; Mismatches 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BY SIMILARITY.
BY SIMILARITY.
052AA3DC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MACROPHAGE INFLAMMATORY
                                                                                                                                                                                                                                                                                                                          VERTEBRATA;
                                                                                                                                                                                                                 ×
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HAKIY N.,
                                                                                                                                                                                                                 OWNBEY T.
                                                                                                                                                                                                                                                                                                                      TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N., ORFANOS
DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIGNAL.
                                                                                                                                                                                                            .
R:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 89;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                              LEDER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C.E.,
                                                                                                                                                                                                            ۳.
                                                              J.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
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                                                                                KASSAM N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          H NODES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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RESULT
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AC P2
DT 01
DT 01
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                                                                                                                                                                Matches
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Best Local
MCPA_BOVIN STANDARD; PRT; 99 AA.
P28291;
01-DEC-1992 (REL. 24, CREATED)
01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC
                                                                                                                                                                        VARIANT
VARIANT
VARIANT
                                                                                                                                                                                                   CHAIN
DISULFID
DISULFID
VARIANT
                                                                                                                                                                                                                                                                                    -! INDUCTION: BY TWF-ALPHA, IL-1-ALPHA AND INTERFERON GAMMA.
-! SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE CC).
C-C) (CHEMOKINE CC).
EMBL; U46573; G1280141; -.
EMBL; U34780; G1185440; -.
EMBL; D49372; G1552241; -.
EMBL; D49372; G1552241; -.
EMBL; 269291; E221070; -.
EMBL; 275669; E251275; -.
EMBL; 275669; E251258; -.
EMBL; 275669; E251258; -.
EMBL; 275669; E329504; -.
                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
TISSUS-SMALL INTESTINE;
MEDLINE; 96205964.
KITAURA M., NAKAJIMA T., IMAI T., HARADA S.,
TIFFANY H.L., MURPHY P.M., YOSHIE O.;
J. BIOL. CHEM. 271:7725-7730(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE; 97312708.
GARCIA-ZEPEDA E.A., ROTHENBERG MORTON C.C. LUSTER A.D.;
GENOMICS 41:471-476(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CHRISTOPHERS E., SCHROEDER J.M.;
BIOCHEM. BIOPHYS. RES. COMMUN. 225:1045-1051(1996).
                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                            PROSITE; PS
EOSINOPHIL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                          SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-LUNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                    NFLAMMATORY
                                                                                                        71 DICADPKKKWVQ
                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           J., SCHLUETER
                                                                                                                                                                                                                                                                                                                                                                                                                                                          97445071.
SCHLUETER C.,
                                                                                                                           8
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                                                                                                                                                  Y RESPONSE; 1
1 23
24 97
32 57
32 77
7 7
7 7
7 7
10732 MW;
                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SCHROEDER
                                                                                      12
                                                                                                        82
                                                                                                                                                                                                                                                           SMALL_CYTOKINES_CC; INE; CHEMOTAXIS; GLY
                                                                                                                                    78.3%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE OF
                                                                                                                                                                                                                                                   POLYMORPHISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                           KULKE R., CHRISTOPHERS E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RICHTER E., R J.M.;
                                                                                                                                    Score 72;
Pred. No.
                                                                                                                                                            POTENTIAL.

EOTAXIN.

BY SIMILARITY.

BY SIMILARITY.

BY SIMICANITY.

L -> P (IN CLONE 3

A -> T (IN CLONE 3

R -> R (IN CLONE 5

K -> R (IN CLONE 5)
                                                                                                                          1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60-65
                                                                                                                           Mismatches
                                                                                                                                                                                                                                                           GLYCOPROTEIN;
                                                                                                                                    ; DB 1; L
. 1.38e-03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WEREMOWICZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NOSO N., KULKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         75-88,
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                                                                                                                                                                        53)
                                                                                                                                           Length 97;
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                                                                                                                                                                                                                                                            SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AND VARIANTS
                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                            SCHROEDER
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                                                                                                                                                                                                                                                                                                                                                                                                                        A PROMINENT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MILB_MOUSE STANDARD; PRT; 92 AA.

P14097;

P14097;

O1-JAN-1990 (REL. 13, CREATED)

O1-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)

15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)

MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA) (H400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE;
CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.

MEDLINE; 94338337.

WEMPE F., KUHLMANN J.K., SCHEIT K.H.;

BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).

-i- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BIOCHEM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA CELL
[2]
                                                 SEQUENCE FROM N.A.
MEDLINE; 89093958.
BROWN K.D., ZURAWS
                                                                                                                                                                           SHERRY B., TEKAMP-OLSON P., GALLEGOS C., WOLPE S.D., MASIARZ F., COIT D., CERAMI J. EXP. MED. 168:2251-2259(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                        PROTEIN) (SIS-GAMMA) (ACT2).
SCYA4 OR MIP1B.
MUS MUSCULUS (MOUSE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE-SEMINAL PLASMA;
MEDLINE; 92096117.
WEMPE F., HENSCHEN A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEMINAL FLUID PROTEIN).
BOS TAUTUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. MEDLINE; 89067830.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PIR; A39296; A39296.
PIR; JC2336; JC2336.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HSSP;
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                                                                                                                                                                                                                                                                                                                                                                   EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                               EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-SEMINAL PLA
MEDLINE; 92181448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
nes 8; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                73 ELCADPKQKWVQ
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                               IMMUNOL.
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SIMILARITY: BELONGS TO
C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EICADPSEEWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P13500;
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M84602; G163395; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BIOPHYS. RES. C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HENSCHEN A., SCHEIT K.H.;
BIOL. 10:671-679(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                   RODENTIA
                               ZURAWSKI S.M., MOS
142:679-687(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PLASMA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SMALL_CYTOKINES_CC; (IS; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11114 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       78.3%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                                            CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 59
75
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99
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                           MOSMANN T.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 72; Di
Pred. No. 1.
2; Mismatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BY SIMILARITY.

MONOCYTE CHEMOTACTIC PRO
PYRROLIDONE CARBOXYLIC A
SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
CRE5821D CRC32;
                                                                                                                                                                                                                                                                                                                                                                                         VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
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1.38e-03;
                                                                                                                                                                                                                                            BAUER
                                                              ZURAWSKI
                                                                                                                                                                                                                                                                                                                                                                                     TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 99;
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                                                                                                                                                                                                                                            DAVATELIS
                                                                                                                                                                                                                                                                                                                                                                                            MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1A.
(BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BUT
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RECECTED BY STATES OF STAT
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Best Local s
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHEMOKINE CC-1 PRECURSOR (
SCYA14 OR NCC2.
HOMO SAPIENS (HUMAN).
EUGRARYOTA; METAZOA; CHORDA
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C-C) (CHEMOKINE CC).
EMBL; M23503; G533245; -.
EMBL; M35590; G19697; -.
EMBL; M355202; G53127; -.
PIR; C30552; C30552.
PIR; JL0088; JL0088.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. STRAIN=DBA/2J; TISS DAUBERSIES P., LEPF PLUMB M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCC1_HUMAN
Q16627;
01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
DISULFID
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-NOV-1997
01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE; 96136773.

SCHULZ-KNAPPE P., MAEGERT H.-J., DEWALD B.,

KUBBIES M., TOMECKEOWSKI J., KIRCHHOFF K., I

KIST A., REINECKE M., SILLARD R., PARDIGOL I

BAGGIOLINI M., FORSSMANN W.-G.;

J. EXP. MED. 183:295-299(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HSSP; H1320,
MGD; MGI:98261; SCYA4.
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
PROSITE: CHEMOTAXIS; INFLAMMATORY RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -!- FUNCTION: MONOKINE WITH INFLAMMATO
-!- SUBUNIT: HOMODIMER (BY SIMILARITY)
-!- SIMILARITY: BELONGS TO THE INTERCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUBMITTED (OCT-1991)
                                                                                                                                                                                                                                     TISSUE-PLACENTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HSSP; P13236; 1HUM.
MGD; MGI:98261; SCY
                                                                                                                                                  SUBMITTED (OCT-1995) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                              PARDIGOL A., MAEGERT FORSSMANN W.-G.;
                                                                                                                                                                                                                                                                                                                              SUBMITTED (MAY-1996)
                                                                                                                                                                                                                                                                                                                                                                                     PARDIGOL A., MAEGERT
                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE-LIVER;
                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE-BONE MARROW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                            SCHULZ-KNAPPE P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    72 QICANPSEPWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 EICADPSEEWV
                           FUNCTION: HAS WEAK ACTIVITIES ON HUMAN MONOCYTES AND ACTS VIA RECEPTORS THAT ALSO RECOGNIZE MIP-1 ALPHA. IT INDUCED INTRACELLULAR CA2+ CHANGES AND ENZYME RELEASE, BUT NO CHEMOTAXIS, AT CONCENTRATIONS OF 100-1,000 NM, AND WAS INACTIVE ON T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
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LEPRETRE F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
   NEUTROPHILS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    35, CREATED)
35, LAST SEQUENCE UI
35, LAST ANNOTATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10168
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72.78;
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NE WITH INFLAMMATORY I
                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                  H.-J., ZUCHT H.D., FORSSMANN W.-G
                                                                                                                                                                                                          H.-J., CIESLAK A., HILL O.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                              EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ST ANNOTATION UPDATE) (HCC-1) (NCC-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BAILLEUL B., GROVE M., PRAGNELL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 71; I
Pred. No. 2.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INTERCRINE BETA FAMILY
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EOSINOPHIL LEUKOCYTES. ENHANCES THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      UPDATE)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 1; I
2.26e-03;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ., MEYER M.,
, RAIDA M., Þ
L A., UGUCCIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   UGUCCIONI M.,
                                                                                                                                                                                                          SCHULZ-KNAPPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
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Best Local S
Matches
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01-JUN-1994
01-NOV-1995
                                                                                                               DISULFID
DISULFID
SEQUENCE
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P36925;
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EMBL; Z70292; E233856; --
EMBL; Z49269; G1004267; --
                                                                                                                                                                          SIGNAL
CHAIN
                                                                                                                                                                                                                               PROSITE;
                                                                                                                                                                                                                                                   -!- SIMILARITY: BELONGS TO THE C-X-C) (CHEMOKINE CXC).
EMBL; X78306; G463254; -.
EMBL; S74436; G786591; -.
PIR; S42496; S42496.
HSSP; P10145; 3IL8.
                                                                                                                                                                                                                                                                                                                                                                                                    SEOW H.F., YOSHIMURA T., WOOD P.R., COLDITZ I.G.;
IMMUNOL. CELL BIOL. 72:398-405(1994).
-!- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LEGASTELOIS 1., GREENLA
GENE 150:367-369(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
MEDLINE; 95121931.
LEGASTELOIS I., GREENLAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MIM;
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                                                                                                                                                                                                                 CYTOKINE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NTERLEUKIN-8
75 EVCLDPKEKWVQ 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  74 VCTNPSDKWVQ 84
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TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN SEVERAL NORMAL
TISSUES: SPLEEN, LIVER, SKELETAL AND HEART MUSCLE, GUT, AND BONE
MARROW, PRESENT AT HIGH CONCENTRATIONS (1-80 NM) IN PLASMA.
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                       RESPONSE TO AN INFLAMMATORY SUBUNIT: HOMODIMER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SHEEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601392; -.
ITE; PS00472; SMALL_CYTOKINES_CC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ICADPSEEWVQ 12
                                                      Similarity
                                                                                                                             PS00471; SMALL_CYTOKINES_CXC; 1.
PS00471; SMALL_CYTOKINES_CXC; 1.
CHEMOTAXIS; INFLAMMATORY RESPONSE;
1 22 BY SIMILARITY.
34 61 BY SIMILARITY.
36 77 BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ARTIODACTYLA
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                                                                                                                 101 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (REL.
(REL.
                                    77.2%;
larity 66.7%;
Conservative
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36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REL. 29, CREATED)
REL. 29, LAST SEQUENCE UF
REL. 32, LAST ANNOTATION
PRECURSOR (IL-8).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       77.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHORDATA;
                                                                                                                 11292
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No. 2.26e-03;
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Best Local &
Matches
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926894; p22951;
01-AUG-1991 (REL. 19, CREATED)
01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE)
01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
01-OCT-1996 (REL. 34, LAST ANNOTATION MACROPHAGE
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...-NOV-1995 (REL. 37)
INTERLEUKIN-8 PPT
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P41324;
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DISULFID
SEQUENCE
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J. CLIN. INVEST. 95:89-103(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C-X-C) (CHEMOKINE CXC).
EMBL; D28772; G517100; -.
EMBL; D14285; G475152; -.
EMBL; U10308; G607814; -.
SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
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GOITSURA R., TSUJIMOTO H., HASEGAWA A., FURUSAWA
ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.;
CYTOKINE 6:455-461(1994).
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EUKARYOTA; METAZOA; CHORDATA;
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-!- SUBUNIT: HOMODIMER.
-!- SIMILARITY: BELONGS TO THE
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MEDLINE; 95127913.
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XIS; INFLAMMATORY RESPONSE;
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31, LAST SEQUENCE UPDATE)
32, LAST ANNOTATION UPDAT
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         TETRAPODA; MAMMALIA;
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IT IS ALSO IN
SEVERAL CELL
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A., HAWKINS
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                                                                                                                       CHEMOTACTIC
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CELL TYPES IN
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                                                                               CCC3_HUMAN STANDARD; PRT; 1
Q13954;
Q1-NOV-1997 (REL. 35, CREATED)
Q1-NOV-1997 (REL. 35, LAST SEQUENCE UP
Q1-NOV-1997 (REL. 35, LAST ANNOTATION
CHEMOKINE CC-3 PRECURSOR (HCC-3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -: INDUCTION: BY LIPOPOLYSACCHARIDE.
-: SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE CYTOKINE ALPHA FAMILY (SMALL CYTOKINE CYTOKINE ALPHA FAMILY (SMALL CYTOKINE CYTOKINE ALPHA FAMILY (SMALL CYTOKINE ALPHA FAMILY (SMALL CYTOKINE ALPHA FAMILY (SMALL CYTOKINE ALPHA FAMILY (SMALL CYTOKINES_CXC; 1.
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J. BIOL. CHEM. 266:8455-8463(1991).
-i- FUNCTION: IL-8 IS A CHEMOPACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
-i- FUNCTION: IL-8 IS A CHEMOPACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
-i- TISSUE SPECIFICITY: ALVEGICAR MACROPHAGES.
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MEDLLINE; 94103307.
LIN G., PEARSON A.E., SCAMURRA R.W.,
WEISS D.J., MURTAUGH M.P.;
J., BIOL. CHEM. 269:77-85(1994).
EUTHERIA; PRIMATES [1]
                                          HOMO SAPIENS (HUMAN)
EUKARYOTA; METAZOA; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 26-45.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                           75 EVCLDPKEKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                          Local
                                                                                                                                                                                                                                                                                               1 EICADPSEEWVQ 12
                                                                                                                                                                                                                                30
                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93041741.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PS00471; SMALL_CYTOKINES_CXC; CHEMOTAXIS; INFLAMMATORY RESI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (MAR-1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (JUL-1991) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1
26
34
36
36
37
103 /
                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AA;
                                                                                                                                                                                                                                                                                                                                         86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25
103
61
77
34
87
                                                                                                                                                                                                                                                                                                                                                                                                        77.2%;
66.7%;
                                            CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA; .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11633 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AND SEQUENCE OF 26-45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MATHEWES S.L.,
                                                                                                                                                                                                                                                                                                                                                                                   Score
Pred.
1; M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INTERLEUKIN-8.
BY SIMILARITY.
BY SIMILARITY.
RC -> CR (IN REF. 5).
K -> KK (IN REF. 2).
W; A012D59D CRC32;
                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                        71; DB 1; I
No. 2.26e-03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESPONSE;
                                                                                                             ON UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZHOU Y., BAARSCH M.J.,
                                                                                                                                                                                                      109 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OSBORN S.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                             Length 103;
                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KUIJPER J.L.,
                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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SO FIT WAS A COLOR OF THE COLOR
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                                                                                                                                          Query Match
Best Local S
Matches
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DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUBMITTED (MAY-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PARDIGOL A., MAEGERT H.-J., ZUCHT H.D., FORSSMANN W.-G SCHULZ-KNAPPE P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. TISSUE-LIVER;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS00472; SMALL_CYTOKINES_CC; 1. CYTOKINE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                       CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIGNAL
                                                                           90 VCTNPSDKWVQ
N
ICADPSEEWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Z70293; E233858;
                                                                                                                                                                                     Similarity
                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                    51
52
109 AA;
                                                                                                                                                  Conservative
                                                                           100
12
                                                                                                                                                                                                                                                                                            109
75
91
12297
                                                                                                                                                                                     77.2%;
                                                                                                                                                                                                                                                                                                            WW;
                                                                                                                                                                                                                                                                                                                                    POTENTIAL.
CHEMOKINE CC-3.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                      Pred.
                                                                                                                                                                                     Score 71; DB 1; 1
Pred. No. 2.26e-03
                                                                                                                                                                                                                                                                                                        9AE90F93 CRC32;
                                                                                                                                                      Mismatches
                                                                                                                                                                                                                         Length 109;
                                                                                                                                                      Indels
                                                                                                                                                      0
                                                                                                                                                      Gaps
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Search completed: Thu Apr 1 07:39:09 1999 Job time: 9 secs.

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MPsrch\_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:39:27 1999; MasPar time 4.93 Seconds 134.366 Million cell updates/sec

Tabular output not generated.

Description: Perfect Score: Sequence: Title: >US-08-927-939-12 (1-12) from US08927939.pep 92

1 EICADPSEEWVQ 12

Scoring table: PAM 150 Gap 15

Searched: 180763 seqs, 55169189 residues

Post-processing: Minimum Match 0% Listing first 100 summaries

Database:

sptremb18
1:sp\_archea 2:sp\_bacter1a 3:sp\_fung1 4:sp\_human
5:sp\_invertebrate 6:sp\_mamma1 7:sp\_mhc 8:sp\_organelle
9:sp\_phage 10:sp\_plant 11:sp\_rodent 12:sp\_unclassified
13:sp\_vertebrate 14:sp\_virus

Statistics: Mean 25.394; Variance 35.421; scale 0.717

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

		de			SOFTWARTES		
Result No.	Score	ery	Length	В	Ħ	Description	Pred. No.
_ :	87	946	80	<u> </u>	014745	ID78 ALBUA DETTA DESCRIB	3 410-06
2	80	87.0	120	4	015467	CIBLE	8.89e-05
w	72	78.3	119	4	000175		4.70e-03
4	72	78.3	133	11	009002	SMALL INDUCIBLE CYTOKI	4.70e-03
ر ن	72	78.3	133	11	009006	BETA CHEMOKINE EXODUS-	4.70e-03
σ	71	77.2	95	14	Q98158	ORF K6.	7.62e-03
7	71	77.2	134	4	000585	BETA CHEMOKINE EXODUS-	7.62e-03
80	68	73.9	395	11	035933	FRACTALKINE.	3.18e-02
9	68	73.9	395	11	035188	NEUROTACTIN.	3.18e-02
10	67	72.8	92	11	088430	CC CHEMOKINE ABCD-1.	5.09e-02
11	66	71.7	109	4	043927	CXC CHEMOKINE PRECURSO	8.11e-02
12	65	70.7	397	4	P78423	CX3C CHEMOKINE PRECURS	1.29e-01
13	64	69.6	97	11	089093	CC CHEMOKINE ST38 PREC	2.04e-01
14	63	68.5	93	4	000626	MACROPHAGE-DERIVED CHE	3.21e-01
15	61	66.3	94	14	Q98157	VMIP-1B.	7.87e-01
16	61	66.3	97	13	057411	LYMPHOTACTIN PRECURSOR	7.87e-01
17	61	66.3	203	14	Q67634	ECO Q PROTEIN (FRAGMEN	7.87e-01
18	60	65.2	96	H	P97884	CC CHEMOKINE EXODUS.	1.22e+00
19	60	65.2	104	13	073912	K60 PROTEIN PRECURSOR.	1.22e+00
20	60	65.2	2180	u	001768	SIMILARITY TO EGF-LIKE	1.22e+00

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	5.0
\$4444444444444444444444444444444444444	
1089 1089	91
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	4
065291 061093 069563 069128 099667 069128 099667 069128 099664	64
INTERLEUKIN-8 (FRAGMEN LARGE SUBUNIT OF TERMI CYTOCHOME B-245, BETA CHEMOKINE EXODUS. RADIAL SPOKEHEAD. CYTOKINE. PUTATIVE EPIMERASE/DEH RNA POLYMERASE II LARG FAST MYBB-C. LOW-DENSITY LIPOPROTEI V-SERA 1. LECA-1 PROTEIN PRECURS EBI-1 LIGAND CHEMOKINE B LYMPHOCYTE CHEMOATTR COSMID ZCB. LOW DENSITY LIPOPROTEI LOW DENSITY	DANTES DRECURSOR
1.90 1.90 1.90 2.930 2.9	90e+0

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RESULT
1
Q14745
ID Q14745
AC Q14745;
DT 01-NOV-1996 (TREMBLREL. 01, CREATED)
DT 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
DT 01-NOV-1996 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DT 01-NOV-1996 (TREMBLREL. 08)
DE LD78 ALPHA BETA PRECURSOR (FRAGMENT)
DC CATARRIN;
DC CATARRIN;
DC CATARRIN;
RA SEQUENCE FROM N.A.
RC 11SSUE-BRAIN;
RC TISSUE-BRAIN;
RC TISSUE-BRAIN;
RC TISSUE-BRAIN;
RA ISHIZUKA K., IGATA-YI R., NARUSE K., NAKASHIMA H., OHUC RA KATSURAGI S., KIN Y., OHMOTO Y., NOMIYAMA H., IIO M., ME NATARAWA T.;
RA MIYAKAWA T.;
RA MIYAKAWA T.;
RA SUBMITTED (AUG-1995) TO EMBL/GENBANK/DDBJ DATA BANKS.
DR EMBL; D63785; G961440;
DR PFAM; PFO0048; i18; 1.
FT NON_TER PS00472; SMALL_CYTOKINES_CC; 1.
DR PFAM; PFO0048; i18; 1.
FT NON_TER 1 1
FT NON_TER 2 1 16
FT NON_TER 2 1 16
FT CHAIN 17 > 80 LD78 ALPHA BETA.
FT NON_TER 80 AA; 8857 MW; 3F87F1C6 CRC32;
RESULT
1D 015467;
AC 015467;
AC 015467;
AC 015467;
AC 01-JAN-1998 (TREMBLREL. 05, CFDT 01-JAN-1998 (TREMBLREL. 08, LFDT 01-NOV-1998 (TREMBLREL. 08, LFDT 01-NOV-1998 (TREMBLREL. 08, LFDT 01-NOV-1998 (TREMBLREL. 08, LFDE LL-10-INDUCLBLE CHEMOKINE. 08, LFDE LL-10-INDUCLBLE CHEMOKINE. 08, LFDE LANGER (TORDATA; METAZOA; CHORDATA; CC CATARRHINI; HOMINIDAE; HOMO.
RN (1)
CC CATARRHINI; HOMINIDAE; HOMO.
RN SEQUENCE FROM N.A.
RA HEDRICK J.A., HELMS A., GORMAI RL SUBMITTED (NOV-1997) TO EMBL/(RN (2)
RN SEQUENCE FROM N.A.
RC TISSUE-LIVER;
RA SHOUDAI K., HIESHIMA K., FUKUI RA SHOUDAI K., HIESHIMA H.;
RL SHOUDAI K., HIESHIMA K., FUKUI RA YOSHIE O., NOMIYAMA H.;
RL BIOCHIM. BIOPHYS. ACTA 0:0-0(RN (3)
RP SEQUENCE FROM N.A.
RA NOMIYAMA H.;
RI "STURCTURE Of a region of 181
RI "STURCTURE Of a region of 181
RU SUBMITTED (AUG-1998) TO EMBL/
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Best Local S
Matches 1
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95
97
98
98
100
                                                                                                                                                                                                                                                                                   HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBMITTED (AUG-1995) TO EMBL/GENBANK/DDBJ DATA BANKS EMBL; D63785; G961440; -.
 "Structure of a region of 181 kb containing five CC o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity nes 10; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     65 QVCADPSEEWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EICADPSEEWVQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                94.6%;
larity 83.3%;
Conservative
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822
1123
1134
1465
6875
26926
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2
                                                                                               0:0-0(1998)
                                                                                                                                                                                                            GORMAN D., ZLOTNIK A.;
EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                    FUKUDA S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              023316
Q56939
Q15497
P91312
Q13018
Q28733
Q10466
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                                                                                                                                                                                                                                                                                                                                                                               CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 87; DB 4; I
Pred. No. 2.41e-06;
2; Mismatches (
                                                                                                                                                                                                                                                                                                     VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                    OII
                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
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180 KD SECRETORY PHOSP
TITIN (FRAGMENT).
TITIN, HEART ISOFORM N
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SLOW MYBP-C.
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                                                                                                                                    MIURA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Χ.,
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M., MIURA R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EUTHERIA; PRIMATES;
                     chemokine
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יטי
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7.82e+01
7.82e+01
7.82e+01
7.82e+01
7.82e+01
7.82e+01
7.82e+01
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                                                                                                                                                                                                                                                                                                                         RESULT
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Best Local Similarity 58.3%;
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PATEL V.P., KREIDER B.L., LI

NARDELLI B., PIPPALLA V., GE
GENTZ R., GAROTTA G.;
J. EXP. MED. 0:0-0(0).

EMBL; U85768; G1916252; -
PEAM; PE00048; 118; 1.

SEQUENCE 119 AA; 13119 MW
                                                                                                                                                                                                       JLT 4
009002 PREL1
009002;
01-JUL-1997 (TREM
01-JUL-1997 (TREM
01-NOV-1998 (TREM
01-NOV-1998 (TREM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JLT 3
000175
000175;
01-JUL-1997
01-JUL-1997
01-NOV-1998
TISSUE-THYMUS;
TANABE S., LU Z., LUO Y., QUACKENBUSH E.J., BERMAN M.A.,
COLLINS-RACIE L.A., MI S., REILLY C., LO D., JACOBS K.A.
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
[2]
                                                                                                                         SCYA21.

MUS MUSCULUS (MOUSE).

EUKARYOTA; METAZOA; CHORDATA; VE
EUKORYOTA; MURIDAE; MURINAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  [4]
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Isolation and characterization monocyte chemoattractant human (activity.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MPIF-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
MEDLINE; 98308096.
YOUN B.S., ZHANG S., HANGOC G., KWON B.S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  74 EVCTNPNDDWVQ
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                                                                                                                                                                                                                                                                                                                                                                                  EICADPSEEWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PF00048; il8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AB007454; D1024963; -.
AF088219; G3719365; -.
AF055467; G3395776; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 M. BIOPHYS. RES. COMMUN. 247:217-222(1998). U91746; G2581781; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (TREMBLREL.)
(TREMBLREL.)
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llarity 50.0%;
Conservative
                                                                                                                                                                                                                                                                                                       PRELIMINARY;
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                                                                                                                                                                                                       04, CREATED)
04, LAST SEQUENCE UPDATE)
08, LAST ANNOTATION UPDATE)
E A21 (TCA4).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 72;
Pred. No. 4
4; Mismat
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pred. No. 8.89e-05;
6; Mismatches (
                                                                                                                                 VERTEBRATA;
E; MUS.
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                                                                                                                                                                                                                                                                                                       PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches 1
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chemokine, with myelosup;
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THOTAKURA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SALCEDO 1
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                                     K.A.,
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                                       DORF
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Best Local S
Matches
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Best Local
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Q98158 PRELIMINARY;
Q98158; 012569;
01-FBB-1997 (TREMBLREL. 0;
01-JUL-1997 (TREMBLREL. 0;
01-NOV-1998 (TREMBLREL. 0;
ORF K6,
KAPOSI'S SARCOMA-ASSOCIATI
VIRUSES; DSDNA VIRUSES, N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ULT 5
009006 PRELIMINARY;
009006;
01-JUL-1997 (TREMBLREL. 0
01-AUG-1998 (TREMBLREL. 0
01-NOV-1998 (TREMBLREL. 0
01-NOV-1998 (TREMBLREL. 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE=TOTAL FETUS;

MEDILINE; 97444139.

HROMAS R., KIM C.H., KLEMSZ M., KRATHWOHL M., FIFE K., COOPER S.,

SCHNIZLEIN-BICK C., BROXMEYER H.E.;

"Isolation and characterization of Exodus-2, a novel C-C chemokine
"ith a unique 3'-amino acid carboxyl-terminal extension.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BETA C
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SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF006637; G2209189; -.
EMBL; AF001980; G2624927; -.
MGD; MGI:1097677; SCYA21.
PFAM; PF00048; i18; 1.
SEQUENCE 133 AA; 14558 MW; C0532523 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                          SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS EMBL; U88322; G3109697; -.
MGD; MGI:1097677; SCYA21.
PFAM; PF00048; 118; 1.
SEQUENCE 133 AA; 14600 MW; B34A5E22 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.

MEDLINE; 97400322.

HEDRICK J.A., ZLOTNIK A.;

"Identification and characterization containing six conserved cysteines.";

J. IMMUNOL. 159:1589-1593(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MUS MUSCULUS
EUKARYOTA; MI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOW
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                                                                                                                                                                                                                                                  73 ELCANPEEGWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SSUE-TOTAL FETUS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IMMUNOL. 159:2554-2558(1997).
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                                                                                                                                                                                                                                 EICADPSEEWVQ
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                                                                                                                                                                                                                                                                                                                                  Similarity
    SARCOMA-ASSOCIATED DSDNA VIRUSES, NO F
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METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                          78.3%;
larity 66.7%;
Conservative
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                                                                 92,2
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07,
    HERPESVIRUS RNA STAGE; H
                                                               LAST SEQ
                                                                                                                                                                                                                                                                                                        Score 72;
Pred. No.
2; Misma
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LAST ANNOTATION UPDATE)
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                        B34A5E22 CRC32;
                                                               SEQUENCE UP
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                                                                                                                                                                                                                                                                                                          Mismatches
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                                                                                                                                                                                                                                                                                                      DB 1.,
4.70e-03;
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4.70e-03;
--hes 2;
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      HERPESVIRIDAE;
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                                                                                    UPDATE)
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                                                               UPDATE)
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Best Local :
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O00585;

O1-JUL-1997 (TREMBLREL 04, CRE 01-JUL-1997 (TREMBLREL 04, LAS 01-MOV-1998 (TREMBLREL 08, LAS BETA CHEMOKINE EXODUS-2.
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.

SUN R., LIN S.-F., MILLER G.
SUBMITTED (SEP-1996) TO EMBI
EMBL; U75698; G1718266; -.
EMBL; U74588; G158273; -.
EMBL; U74586; G158273; -.
EMBL; U738672; G2246546; -.
EMBL; U71366; G3551763; -.
EFFAM; PF00048; 118; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
MEDLINE; 97094384.
MOORE P.S., BASHOFF C.,
"MOOLECULAR mimicry of h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SCIENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B.; "Cell-homologous genes in the Kaposi's sarcoma-associated human herpesvirus 8: determinants of its pathogenicity?"; J. VIROL. 71:4187-4192(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
RUSSO J.J., BOHENZKY R.A.,
PARRY J.P., PERUZZI D., EDI
SUBMITTED (OCT-1996) TO EMI
SEQUENCE FROM N.A. HROMAS R.A., GRAY P., SUBMITTED (JUN-1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P. SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M. PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE "Nucleotide sequence of the Kaposi sarcoma-associated (HHV8).";
                                                                                      CATARRHINI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. MEDLINE; 97296220.
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NICHOLAS J., RUVOLO V.R.,
HENDRICKSON S., GUO H.G.,
SUBMITTED (NOV-1996) TO EN
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CE 274:1739-1744(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
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97121480.
                                                                                      HOMINIDAE;
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larity 66.7%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RHADINOVIRUS
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TO EMBL/GENBANK/DDBJ
    Ö
KLEMSZ M., FIFE K., TO EMBL/GENBANK/DDBJ
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                                                                                      OMOH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A., CHIEN M.C., CHA
EDELMAN I.S., CHAN
EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WEISS
                                                                                                                                                                        CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 71; DB 14;
Pred. No. 7.62e-03;
3; Mismatches 1
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                                                                                                           VERTEBRATA;
                                                                                                                                                                                                                                                                 134
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CHANG Y., MOORE P.
DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CRC32;
                                                                                                                                                                                                                                                                 B
  BROXMEYER H.;
DATA BANKS.
                                                                                                           MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               J., YAN M.,
Y., MOORE P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
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                                                                                                        EUTHERIA;
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P.S.;
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Best Local
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                          035188;
035188;
01-JAN-1998
01-JAN-1998
01-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ROSSI D., HARDIMAN G., COPELAND N., GILBER ZLOTNIK A., BAZAN J.F.;
SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ EMBL; U92565; G2459677; -.
PFAM; PF00048; 118; 1.
SEQUENCE 395 AA; 42040 MW; 3997A113 CR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA M., NISHIMURA M., KAKIZAKI M., NOMITAMA H., YOSHIE O.; SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; 018320; G2196920; EMBL; AF001979; G2624925; EMBL; AF001979; G2624925; EMBL; AF001409; D1022673; --
EFFAM; PF00048; 118; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
HEDRICK J.A., ZLOTNIK A.
SUBMITTED (MAY-1997) TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Identification and characterization of a novel beta chemokine containing six conserved cysteines.";
J. IMMUNOL. 159:1589-1593(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 [2]
SEQUENCE FROM N.A.
MEDLINE; 97400322.
HEDRICK J.A., ZLOTNIK A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
STRAIN-BALB/C; TIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    035933;
01-JAN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        035933
                                                                                        MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
SEQUENCE FROM N.A
                                                             SCIUROGNATHI;
                                                                                                                                                                SCYD1
                                                                                                                                                                                               NEUROTACTIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FRACTALKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73 FCADPKEKWVQ 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          73 ELCADPKELWVO
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                                                                                                                                                                                                                      (TREMBLREL.
(TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (TREMBLREL. 05, CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        73.9%;
larity 72.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                             MURIDAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 84
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75.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COPELAND N., GILBERT D.J., JENKINS
                                                             MURINAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05,
05,
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                                                                                                                                                                                                                          86,6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 68; DB 11; Pred. No. 3.18e-02; Vismatches 2;
                                                                                                                                                                                                                          CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDAT
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LAST ANNOTATION UPDATE)
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Pred. No. 7.
                                                                                                                                                                                                                                                                                                                                                               PRT;
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                                                                                                                                                                                                                                                                                                                                                               395
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7.62e-03
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                                                                                            MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DATA
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                                                                                                                                                                                                                          UPDATE)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BANKS
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                                                                                            EUTHERIA;
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SULT 10
) O88430;
C O88430;
JT 01-NOV-1998 (TREMBLREL. 08, CARRATED)
DT 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDA-
DT 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UP
DE CC CHEMORINE ABCD-1.
OS MUS MUSCULUS (MOUSE).
OS MUS MUSCULUS (MOUSE).
OS HUS METAZOA; CHORDATA; VERTEBRATA; MAN-
TURARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAN-
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Best Local Similarity
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PAN Y., CLARE L., HONG 2., DOLICH S., DEEDS J.
GOSSELIM M., MA J., DUSSAULT B., WOOLF B., ALP
GUTIERREZ-RAMOS J.C., GEARING D.;
"Neuroctactin, a membrane-anchored chemokine up
inflammation.";
NATURE 387:611-617(1997).
EMBL; AF010586; G2317698; -.
MGD; MGI:1097153; SCYD1.
PFAM; PF00048; 118; 1
SEQUENCE 395 AA; 42098 MW; E3CD0612 CRC32;
                                                                                                                                                                         ULT 11
043927; PRELIMINARY;
043927; (TREMBLREL.)
01-JUN-1998 (TREMBLREL.)
01-JUN-1998 (TREMBLREL.)
01-NOV-1998 (TREMBLREL.)
SEQUENCE FROM N.A.

MEDLINE; 98130629.

LEGIER D.F., LOETSCHER M., STUBER ROOS R., CLARK-LEWIS I.,

BAGGIOLINI M., MOSER B.;

"B cell-attracting chemokine 1, a human CXC chemokine expressed in lymphoid tissues, selectively attracts B lymphocytes via BLR1/CXCR5.";

J. EXP. MED. 187:655-660(1998).
                                                                                                                                                                                                                                                                                                                                                                    "Activated murine B lymphocytes and CC chemokine which acts selectively J. EXP. MED. 188:451-463(1998).
EMBL; AF052505; G3378116; -.
SEQUENCE 92 AA; 10302 MW; BC7219
                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE; 98353531.
SCHANIEL C., PARDALI E.,
SHIMIZU T., SEIDL T., ANI
SIDERAS P.;
                                                                                                                        HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                               CXC CHEMOKINE PRECURSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                      74 DICADPRQVWV 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73 FCADPKEKWVQ 83
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                                                                                                                                                                                                                                                                          1 EICADPSEEWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 ICADPSEEWVQ
                                                                                                                                                                                                                                                                                                                      72.8%;
larity 63.6%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   73.9%;
ilarity 72.7%;
Conservative
                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                            E., SALLUSTO F.,
ANDERSSON J., M
                                                                                                                                                                          868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 68;
Pred. No.
1; Misma
                                                                                                                                                                                                                                                                                                                     Score 67; DB 11,
pred. No. 5.09e-02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                         CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                           VERTEBRATA;
                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                      BC7219A0 CRC32;
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No. 3.18e-02;
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on activated T
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F B., ALPERIN A., C
                                                                                                                                                                                                                                                                                                                                                                                                                                              SPELETAS M., RUEDL C., ELCHERS F., ROLINK A.G.,
                                                                                                                                                                                                                          Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MAMMALIA;
MUS.
                                                                                                                            MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        upregulated
                                                                                                                                                                                                                                                                                                                                              Length 92;
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T cells.";
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                                                                                                                            EUTHERIA;
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                                                                                                                            PRIMATES
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RESULT
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Best Local S
Matches
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Best Local Similarity
Matches 7; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.

MEDLINE: 97177111.

BAZAN J.F., BACON K.B., HARDIMAN GREAVES D.R., ZLOTVIK A., SCHALL

"A new class of membrane-bound chem the second chem and the second chem and the second chem and the second chem arture 385:640-644(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.

MEDLINE; 98146056.

GUNN M.D., NGO V.N., ANSEL K.M., E
WILLIAMS L.T.;

"A B-cell-homing chemokine made ir
Burkitt's 1ymphoma receptor-1.";
NATURE 391:799-803(1998).
OB9093;
OB9093;
                                                                                                                                                                                                                                                                               CHAIN
                                                                                                                                                                                                                                                                                                                                  ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., BRANDON R., KIM U.J., KERLAVRAGE A.R., VENTER J.C.;
"Homo sapiens Chromosome 16 BAC clone CIT987SK-A-152E5.";
SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U91835; G1899259; --
EMBL; U94487; G1888523; --
EMBL; AC004382; G3252821; --
EMBL; AC004382; G3252821; --
EMBL; PF00048; i18; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAY-1997 (TREMBLREL 0
01-MAY-1997 (TREMBLREL 0
01-NOV-1998 (TREMBLREL 0
CX3C CHEMOKINE PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           T 12
P78423 PRELIMINARY;
P78423; 000672;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAPOLITANO M., SPINETTI G., GAETANO C., CAPOGROSSI C. SUBMITTED (OCT-1997) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; AJ002211; E1249325; -. EMBL; AF044197; G2911376; -. EMBL; AF029894; G3169814; -.
                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                 SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
ADAMS M.D., LOFTUS B.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATARRHINI; HOMINIDAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. NAPOLITANO M., SPI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL.
                                                                                                                                        73 FCADPKEQWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 75 VCVDPQAEWIQ
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                                                                                                   ICADPSEEWV
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109
                    PRELIMINARY;
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                                                                                                                                        82
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12664 MW;
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54.5%;
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., SCHALL T.J
                                                                                                                                                                                                                                                            W.
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                           Score 65; DB 4; I
Pred. No. 1.29e-01;
2; Mismatches 1
                                                                                                                                                                                                                                                        POTENTIAL.
CX3C CHEMOKINE.
C8093D7D CRC3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAETANO C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          POTENTIAL.
                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERTEBRATA;
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d. No. 8.11e-02;
Mismatches 3;
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                    97
                                                                                                                                                                                                                                                          CRC32;
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RESULT 14
ID 000626;
AC 000626;
DT 01-JUL-1997 (TREMBLEEL 04
DT 01-OV-1998 (TREMBLEEL 04
DE MACROPHACE-DERIVED CHEMOKI
GN MCC OR A-152E5.1.
OS HOMO SAPIENS (HUMAN).
CE LOOK METAZOA; CHORDE
OC CATARRHINI; HOMINIDAE; HON
RP SEQUENCE FROM N.A.
RA GODISKA R., CHANTRY D., RV
RA MANTOVANIA., GRAY P.W.;
RL J. EXP. MED. 185:0-0(0).
RN [2]
RA MANTOVANIA., GRAY P.W.;
RL J. EXP. MED. 185:0-0(0).
RN [2]
RA MENG T., MCNINCH J., EI
RA MENG T., BOONE T., ANDREW
RL SUBMITTED (JUN-1997) TO EI
RN [3]
RP SEQUENCE FROM N.A.
RA ADAMS M.D., LOFTUS B.J., LA
RA ADAMS M.D., LOFTUS B.J., LA
RA BRANDON R., KIM U.J., KER
RA BRANDON SAP1ENS Chromosome
RL SUBMITTED (JUN-1998) TO EI
DR EMBL; U83239; G2062425; -
DR EMBL; W3239; G2062425; -
DR EMBL; W3239; G2062425; -
DR EMBL; W3239; G3062425; -
DR EMBL; W3239; G3063425; -
DR EMBL;
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Best Local Similarity
Matches 6; Conse
Query Match
Best Local Similarity
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SEQUENCE
                                                                                                                                                                                                                                SEQUENCE FROM N.A.
ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J.,
BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
"Homo sapiens Chromosome 16 BAC clone CIT987SK-A-152E5.";
SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
CHANG M.S., MCNINCH J., ELIAS III C., MANT
CHANG T., BOONE T., ANDREW D.P.;
MENG T., BOONE T. TO EMBL/GENBANK/DDBJ
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MACROPHAGE-DERIVED CHEMOKINE MDC OR A-152E5.1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBMITTED (JUL-1998) TO EMBL/GENBANK/DDBJ EMBL; AF053313; G3551819; -. EMBL; AJ007862; E1312757; -.
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                                                                                                                                                                                        EMBL; U83171; G1931581; -. EMBL; U83239; G2062425; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RODENTIA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "A novel rat CC chemokine, id display, is upregulated in br NEUROIMMUNOL. 0:0-0(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ESSLAUER W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   74 VCADPKQNWV
:|||| ::||
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28
7 AA;
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larity 60.0%;
Conservative
                                                                                                                                                                     G3252820;
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                                                               10580
  68.5%;
72.7%;
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97
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 04, CREATED)
04, LAST SEQUENCE UPDATE)
08, LAST ANNOTATION UPDATE)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RAPORT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MW;
                                                               X.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              identified by targe brain inflammation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 64; DB 11;
Pred. No. 2.04e-01;
3; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CREATED)
LAST SEQUENCE UPDATE)
  Score 63;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LAST ANNOTATION
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         POTENTIAL.
CC CHEMOKINE ST38
053405BD CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KLINKERT W.E.F.,
                                                           POTENTIAL.
MACROPHAGE-DERIVED CHEMOKINE
65EA63D2 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERTEBRATA;
AE; MURINAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOZZANI
  DB 4; I
3.21e-01;
                                                                                                                                                                                                                                                                                                                                                                                                     MANTHEY C.L.,
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MUS.
                                                                                                                                                                                                                                                                                                                                                             DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DATA BANKS.
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;
                   Length 93;
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RESULT 15

ID Q8157;
AC Q98157;
AC Q98157;
DT 01-FEB-1997
RA MICHOLS J.J.,
RA MOORE P.S.,
RI SUBMITTED (SI
RY SEQUENCE FROJ
RA RUSSO J.J.,
RA PARRY J.P.,
RA
                                                                                          Query Match
Best Local
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                                                                      Matches
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RUSSO J.J., I
PARRY J.P., 1
                                                                                                                                            SEQUENCE FROM N.A.

SUN R., LIN S.-F., MILLER G.;
SUNMITTED (SEP-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U67775; G1562496; -.
EMBL; U75698; G1718264; -.
EMBL; U75698; G2246517; -.
EMBL; U93872; G2246517; -.
EMBL; U71365; G3551760; -.
PFAM; PFO0048; i18; 1.
HYPOTHETICAL PROTEIN.
SEQUENCE 94 AA; 10486 MW; 91312200 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE: 97094384.

MOORE P.S., BASHOFF C., WEIS
"Molecular mimicry of human
genes by KSHV.";
SCIENCE 274:1739-1744(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KAPOSI'S SARCOMA-ASSOCIATED HERPES-LIKE VIRUS,
AND KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.
VIRUSES; DEDNA VIRUSES, NO RNA STAGE; HERPESVI
GAMMAHERPESVIRINAE; RHADINOVIRUS.
                                                                                                                                                                                                                                                                                                                                                                                   MEIPEL F., ALBRECHT J.C., FLECKENSTEIN B. "Cell-homologous genes in the Kaposi's sa human herpesvirus 8: determinants of its J. VIROL. 71:4187-4192(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. MEDLINE; 97296220.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. MEDLINE; 97094384.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NICHOLAS J., RUVOLO V.R., BURNS W.H., SANDFORD G., WI
HENDRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;
SUBMITTED (SEP-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
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      QVCADKSKDWV
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                                                                    Similarity 6; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P. (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ., BOHENZKY R.A.,
., PERUZZI D., ED.
(OCT-1996) TO EM
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                                                                      Conservative
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                                                                                     66.3%;
54.5%;
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EDELMAN I.S., CHANG Y., MOORE
EMBL/GENBANK/DDBJ DATA BANKS.
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                                                                    Score
Pred.
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No. 7.
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., REITZ M.S.;
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                                                             )B 1.
/.87e-01;
2;
                                                                                                             DB 14;
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                                                                                                                                                                                                                                                                                                                                                                                                       sarcoma-associated
cs pathogenicity?";
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cytokine
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                                                                                                           Length 94;
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.S.;
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.S.;
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.S.;
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Best Local s
Matches
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Best Local Similarity
Matches 6; Conse
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Q67634 PRELIMINARY;
Q67634;
Q67634;
Q1-NOV-1996 (TREMBLREL 01, C)
Q1-NOV-1996 (TREMBLREL 01, C)
Q1-NOV-1998 (TREMBLREL 08, L)
ECO Q PROTEIN (FRAGMENT);
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057411;
057411;
057411;
01-JUN-1998 (TREMBLREL. C)
01-JUN-1998 (TREMBLREL. C)
01-JUN-1998 (TREMBLREL. LYMPHOTACTIN PRECURSOR.
ILT 18
P97884
P97884;
P97884;
01-MAY-1997
01-MAY-1997
                                                                                                                                                                                                                                                                                                                                       EMBL; U34700,
PFAM; PF00048; il
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ROSSI D.L., BAZAN J.F., ZLOTNIK A.;
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ
EMBL; AF006742; G2827882; -.
                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                 EMBL; U34966; G1185444;
                                                                                                                                                                                                                                                                                                                                                                                                                                            "Isolation and characterization of Marek's disease virus (MDV) cDNAs mapping to the BamHI-I2, BamHI-Q2, and BamHI-L fragments of the MDV genome from lymphoblastoid cells transformed and persistently infects
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SHIRAZI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE; 96074534.
PENG Q., ZENG M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VIRUSES; DSDNA VIRUSES, NO RNA STAGE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GALLID HERPESVIRUS TYPE VIRUSES; DSDNA VIRUSES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                       VIROLOGY 213:590-599(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN-GA;
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                                                                                                                                                                                          145 VCVDPEAPWVQ 155
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Similarity 54.5%;
6; Conservative
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  (TREMBLREL.
                                                                 PRELIMINARY;
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54.5%;
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11131
                                                                                                                                                                                                                                                                                                                     23132 MW;
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                                                                                                                                                                                                                                  Score 61; DB 14;
Pred. No. 7.87e-01;
1; Mismatches 4
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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LYMPHOTACTIN.
3290101C CRC32;
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Pred. No. 7.87e-01;
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                                                                 PRT;
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PHASIANINAE; GALLUS
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Best Local S
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   073912;
01-AUG-1998
01-AUG-1998
01-AUG-1998
                                    LT 20
001768; PRELIMINARY; PRT; 2180 AA.
001768;
01-JUL-1997 (TREMBLREL 04, CREATED)
01-JUL-1997 (TREMBLREL 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL 08, LAST ANNOTATION UPDATE)
SIMILARITY TO EGF-LIKE DOMAINS.
T21E3.3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LT 19
073912
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EUKARYOTA; METAZOA; CHORDATA;
NEOGNATHAE; GALLIFORMES; PHAS!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
STRAIN-SPRAGUE-DAWLEY;
KELNER G.S., MACIELEWSKI-LENOIR D., LEE E.
SUBMITTED (FEB-1997) TO EMBL/GENBANK/DDBJ
CAENORHABDITIS ELEGANS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ EMBL; Y14971; E1295103; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. STRAIN-FISHER 344; UTANS-SCHNEITZ U.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  K 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
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CC CHEMOKINE EXODUS.
RATTUS NORVEGICUS (RAT).
EUKARYOTA; METAZOA; CHOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ISSUE=MACROPHAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           75
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Local Similarity 60.0%;
les 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NEUROIMMUNOL. 0:0-0(1998)
BL; U90447; G1899246; -.
BL; AF053312; G3551817; -.
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104
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(TREMBLREL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                65.2%;
llarity 54.5%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ΑA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LIKE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20 F
104 K
11199 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10875 MW;
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LOREZ H., KLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MURINAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07,
07,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ,80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PATA; VERTEBRATA; ARCHOSAURIA; AVES; PHASIANIDAE; PHASIANIDAE; GALLUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               identified by targe brain inflammation.
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred.
2; 1
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Pred. No. 1.22e+0
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K60 PROTEIN.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERTEBRATA;
E; RATTUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              40C2EF8A CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3FC09DD8 CRC32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . No. 1.22e+00;
Mismatches 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         104
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JB 1.,
1.22e+00;
3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MAKI R.A.;
A BANKS.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DA SILVA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BANKS
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RESULT OF RESULT
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Best Local S
Matches
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043646;
01-JUN-1998
01-JUN-1998
01-NOV-1998
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HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW CHISTEN J., LAISTER N., LATREILLE P., LIGHTNING J., LLOYD C.,
MCMURRAY A., MORTINORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
RIFKEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMT.
SONNHAMMER E., STADEN R., SULSTON J., THIERRY-MIEG J., THOMAS K.
VAUDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
WILKINSON-SPROAT J., WOHLDMAN P.;
                                  CHAIN
                                                                                                                                SEQUENCE FROM N.A.
JANG J.S., KIM B.E.;
SUBMITTED (JAN-1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE; PSO1186; EGF_2; 7.
PROSITE; PSO1209; LINEA_1; 10.
PFAM; PF00057; Idl_recept_a; 1
PFAM; PF00058; Idl_recept_b; 8
SEQUENCE
                                                              SIGNAL
                                                                                              SIGNAL.
                                                                                                                       PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATARRHINI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RANTES PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GLYCOPROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS EMBL; AF003133; G2088683; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
STRAIN-BRISTOL N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
STRAIN-BRISTOL N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BURTON J., CONNELL M., C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
RHABDITINA; RHABDITOIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITI
                                                                                                                                                                                                                                                                          NOMIYAMA H.;
                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WATERSTON R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBMITTED
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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8 (TREMBLREL.
6 (TREMBLREL.
91
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AA;
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WW.
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Pred. No. 1.
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LAST ANNOTATION
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1.22e+00;
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COULSON A., C
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SMITH
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Best Local Similarity
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P95531;
P95531;
O1-MAY-1997
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O1-NOV-1998
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062812;
062812;
01-AUG-1998;
01-AUG-1998;
01-AUG-1998;
                                                                                                                                                                                                                                                                                                                       "Nucleotide sequences and regulational analysis of genes conversion of aniline to catechol in Pseudomonas putida UCC22(pTDN1).";
J. BACTERIOL. 179:399-408(1997).
EMBL; D85415; D1013489; -.
EMBL; D85415; P500570; RING_HYDROXYL_ALPHA; 1.
PFAM; PFO0848; Ring_hydroxyl_A; 1.
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NON_TER 97 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EQUUS CABALLUS (HORSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PERISSODACTYLA; EQUIDAE; EQUUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IL-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01 MAY-1997 (TREMBLREL. 03, CREATED)
01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
01-MOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
LARGE SUBUNIT OF TERMINAL DIOXYGENASE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-AUG-1998 (TREMBLREL. 07, CREATED)
01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDAT
INTERLEUKIN-8 (FRAGMENT).
                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                      DIOXYGENASE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE; 97144524.
FUKUMORI F., SAINT C.P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN-UCC22;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PSEUDOMONAS PUTIDA
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                                                                 385 LCNSPEDEWVD 395
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                                                                                                                                                                                                                                                                   448 AA; 50510 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       64.1%;
larity 50.0%;
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llarity 41.7%;
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                                                                                                                                Score 59; DB 2;
Pred. No. 1.90e+00
3; Mismatches
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Pred. No. 1.90e+00,
2; Mismatches '
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                                                                                                                                                                                                                                                                   9F019DF8 CRC32;
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1.90e+00;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PSEUDOMONAS GROUP;
                                                                                                                                                                                          Length 448;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
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Best Local Similarity 70.0%;
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
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SEQUENCE FROM N.A.

BJORGVINSDOTTIR H., ZHEN L., D

BJORGVINSDOTTIR H., ZHEN L., D
                                                                       O46178 PRELIMINARY;
O46178;
O1-JUN-1998 (TREMBLREL. 0
O1-JUN-1998 (TREMBLREL. 0
O1-NOV-1998 (TREMBLREL. O
RADIAL SPOKEHEAD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JLT 25
Q99664;
Q99664;
Q1-MAY-1997
Q1-MAY-1997
Q1-NOV-1998
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Q1093

Q2000 AA.

Q
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HOMO SABLENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
STRONGYLOCENTROTUS PURPURATUS (PURPLE SEA URCHIN).
EUKARYOTA; METAZOA; ECHINODERMATA; ECHINOZOA; ECHINOIDEA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE-PANCREAS;
MEDLINE; 97275143.
HROMAS R., GRAY P.W.,
BELL G.I., TAKEDA J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA;
SCIUROGNATHI; MURIDAE; MURINAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CYBB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PFAM; PF00048; i18; 1. SEQUENCE 95 AA; 10691 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (HEME BINDING MEMBRANE GLYCOPROTEIN GP91PHOX).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KLEMSZ M.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          242 DICADKIEEW
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                                                                                                                                                                                                                                                                                                                                                                              2 ICADPSEEWV
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7 (TREMBLREL.
8 (TREMBLREL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                               81
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50.0%;
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ARONICA
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                                                                                                             888
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Pred. No. 1.90e+00;
1; Mismatches
                                                                                                      CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pred. No. 2.93e+00;
3; Mismatches 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GODISKA R.,
GORDON M., C
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 95;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BROXMEYER H.E.,
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                                                                 Query Match
Best Local
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Best Local
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Best Local
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                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q90825
Q90825;
Q1-NOV-1996
Q1-NOV-1996
Q1-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                        069128 PRELIMINARY; PRT; 321 AA. 069128; 01-AUG-1998 (TREMBLREL. 07, CREATED) 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE) 01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE) PUTATIVE EPIMERASE/DEHYDRATASE WBIG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE; 98119758.
GINGRAS D., GACNON C.;
"Molecular cloning and characterization of a of sea urchin sperm axonemes: involvement of regulation of sperm motility.";
MOL. BIOL. CELL 9:513-522(1998).
EMBL; U73123; G2905895; -.
EMBL; U73123; G2905895; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TIŜSUE-BONE MARROW;

PETRENKO O., ENRIETTO P.J.;

SUBMITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.

EMBL; L34552; G509594; -.

PFAM; PF00048; 118; 1.

PFAM; PF00048; 118; 1.

SEQUENCE 96 AA; 11115 MW; FC581424 CRC32;
                                                                                                                       DESHAZER D., BRETT P.J., WOODS D.E.;
SUBMITTED (MAY-1998) TO EMBL/GENBANK/DDBJ DATA :
EMBL; AF064070; G3135686; -.
SEQUENCE 321 AA; 34852 MW; F0196B82 CRC32;
                                                                                                                                                                                                                                                                                                                                                               WBIG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GALLUS GALLUS (CHICKEN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBR
NEOGNATHAE; GALLIFORMES; PHASIANIDAE;
                                                                                                                                                                                                                       STRAIN-1026B;
                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                             BURKHOLDERIA.
                                                                                                                                                                                                                                                                                                              BURKHOLDERIA PSEUDOMALLEI
BACTERIA; PROTEOBACTERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. MEDLINE; 98119758.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    270 VCNEPGQPWV 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             / Match 62.0%;
Local Similarity 54.5%;
nes 6; Conservative
37 VCAEGVSEWVH 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   73 FCVDPAEGWFQ 83
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                                                               Local
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4; Conservative
                                          Similarity 45.5%; 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6 (TREMBLREL.
6 (TREMBLREL.
8 (TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
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                                                               62.0%;
45.5%;
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01,
                                                                                                                                                                                                                                                                                                           BETA SUBDIVISION; BURKHOLDERIA GROUP;
                                       Score
Pred.
3; M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score
Pred.
2; M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pred.
4; M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERTEBRATA; ARCHOSAURIA; AVES; IANIDAE; PHASIANINAE; GALLUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                       re 57; DB 2; Led. No. 4.49e+00; Mismatches 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            e 58; DB 5; Leno
No. 2.93e+00;
Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        e 57; DB 13; Lei
. No. 4.49e+00;
Mismatches 3;
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the protein i
                                                                                  Length 321;
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RNA POLYMERASE II LARGE SUBGNIT (FRAGMENT).
RELDIA PUNCTATA.
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                                                                                                                                                                                                                                                                 receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammation sites. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared with 75:1 for prior art mutant 7ND.
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                                                                     Monocyte chemoattractant protein analogue MCP-1 (11-76). Truncated monocyte chemoattractant protein-1; inhibitor; receptor binding; anti inflammatory; basophil; lymphocyte; chronic inflammatory disease; arthritis; arteriosclerosis;
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Monocyte chemoattractant protein analogue MCP-1 (10-76).
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Bisclosure; Page 5; 27pp; English.

CC The present sequence represents an analogue, MCP-1 (11-76), of monocyte

CC The present sequence represents an analogue, which lacks the

CC N-terminal amino acids 1-10 of MCP-1). The analogue, which lacks the

CC I the moattractant protein-1 (MCP-1). The analogue, which lacks the

CC I the analogue is useful as an anti-inflammatory agent to block

CC the effects of MCP-1 which is an inflammatory mediator causing migration

CC of monocytes and other cells e.g. basophils and lymphocytes into

CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung

CC diseases. The analogue competes more effectively with MCP-1 for binding

CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably

CC with 75:1 for prior art mutant 7ND.

So Sequence 67 AA;
                                                                    Pri anti-inflammatory agent
Claim 7: Page 5: 27pp; English.
CC The present sequence represents an analogue, MCP-1 (9-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the CC N-terminal amino acids 1-8 of MCP-1) acts as an antagonist of MCP-1 cas it lacks MCP-1 biological activity and inhibits binding to a MCP-1 creceptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into CC inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding CC MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared SQ Sequence 68 AA;
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
CA2152141-A.
20-DEC-1996.
19-JUN-1995; 1.
19-JUN-1995; C.
                                                                                                                                                                                                                                                                                                                                                                         Gong J, Lewis I; WPI; 97-165844/16 N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) -lacks MCP-1 activity and inhibits receptor binding, useful as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                W13597 standard; peptide; W13597; 07-NOV-1997 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Monocyte chemoattractant protein analogue MCP-1 (9-76).
Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) lacks MCP-1 activity and inhibits receptor binding, useful as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gong J, Lewis I; WPI; 97-165844/16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         lung disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       (LEWI/) LEWIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41 eicadpkqkwvq
||||||||||||
1 EICADPKQKWIQ
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11; Conser
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ilarity 91.7%;
Conservative
97.9%;
llarity 91.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             152141.
CA-152141.
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Pred.
1; M
                 Score 95; DB 24;
Pred. No. 8.74e-03;
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No. 8.74e-03;
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                                     Length
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IDENTIFICATION OF THE STATE OF 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis?

Claim 4: Page 11: 22pp; English.

Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28-Tyr by asspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1999.

The peptides can be used to prevent restenosis, e.g. in patients
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 1
anti-inflammatory agent claim 5; Page 5; 27pp; English.
The present sequence represents an analogue, MCP-1 (8-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1
                                                                                                                                                                                                                                             19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
(LEWI/) LEWIS I.
                                                                                                                                                                                                                                                                                                                                                                                                                                       Truncated monocyte chemoattractant protein-1; inhibitor; receptor binding; anti inflammatory; basophil; lymphocyte; allergy; chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W13596 standard; peptide; W13596; 07-NOV-1997 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-MAY 1995.

07-NOV-1994; U12874.

12-NOV-1993; US-152301.

(DAND ) DANA FARBER CANCER INST INC.

ROllins B, Zhang YJ;

WPI; 95-215051/28.
                                                                                                                                       N-terminally truncated monocyte chemo:attractant prolacks MCP-1 activity and inhibits receptor binding,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         disulfide_bond disulfide_bond
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monocyte chemoattractant protein; MCP-1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         43 eicadpkqkwvq
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nes 11; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ۲
                                                                                                                                                                                               J, Lewis I;
97-165844/16.
                                                                                                                                                                                                                                                                                                                                                                                             sapiens.
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llarity 91.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4..29
5..45
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note- "amino acids 2-8 of been deleted between these
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein analogue MCP-1
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Pred. No. 8.74e-03;
1; Mismatches 0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (8-76).
                                                                                                                                             protein-1
ng, useful
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Best Local Similarity
Thes 11; Conserv
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Best Local S
Matches 1
25-FEB-1997.
05-OCT-1992; 956862.
05-OCT-1992; US-956863.
05-OCT-1992; US-956862.
29-APR-1994; US-235659.
                                                                                                                                                                                                                                                                                                                                                                                                                                         wound treatment using monocyte chemotactic factor - has potent therapeutic effect on skin wounds and ulcers Disclosure; Page 12; 22pp; Japanese.
The invention relates to a new remedy for curing wounds which, instead of comprising a growth factor, comprises a monocyte chemotactic activating factor (MCAF) or its variants or derivatives. The factor has potent effect on skin wounds and ulcers. The present sequence is human MCAF, the activity of which is exemplified as the new remedy. Sequence 76 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammation sites. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared with 7:1 for prior art mutant 7ND.
                                                                                                                                                                                                                            W11131 standard; protein; 76 AA. W11131; 10-JUN-1997 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            T 6
R87680 standard; protein;
                                                                            US5605671-A.
                                                                                                                                                                Mature human monocyte chemoattractant protein-1 (MCP-1). MCP-1; mature chemoattractant protein-1; cytokine; interleukin-8; IL-8; neutrophil activating peptide; labelling; imaging; targetin radionuclide; infection; inflammation; neoplasm; atheromatous les
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 95-131181/17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13-SEP-1994; J01512.
13-SEP-1993; JP-227385.
(TORA) TORAY IND INC.
Matsushima K, Naruto M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO9507710-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Monocyte chemotactic activating factor for use as wound remedy. monocyte chemotactic activating factor; MCAF; wound remedy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-MAR-1996 (first entry)
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                                                                                                        misc_difference
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
                                                                                                                                     Homo sapiens.
                                                                                                                                                     restenosis.
                                                                                                                                                                                                                                                                                                                     43 eicadpkqkwvq
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 EICADPKQKWIQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       for prior art mutant 7ND. 69 AA;
                                                                                                                                                                                                                                                                                                                                                                                97.9%;
ilarity 91.7%;
Conservative
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                                                                                                                       Location/Qualifiers
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91.78;
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                                                                                        any amino
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Pred. No. 8.74e-03;
1; Mismatches 0
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Pred. No. 8.74e-03;
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Best Local S
Matches 1
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W09219737 A.

12-NOV-1992.

27-APR-1992; J00550.

09-MAY-1991; JP-135950.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             targetted delivery of radioactive agent Example 10; Column 19-20; 15pp; English.
WIL131 represents mature human monocyte chemoattractant protein-1 (MCP-1). MCP-1 was radionuclide labelled and used in a method for imaging a target site in vivo in an animal. Labelled MCP-1 was allowed to accumulate at a target site (having MCP-1 receptors) in the animal and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys chemokine carrying either iodine-123 or iodine-131 can be used in the method. Especially preferred is neutrophil activating peptide-2 (NAP-2) which recognises inclum-111, copper-62, rhenium-186 or rhenium-188. The method can be used for imaging a site of infection, inflammation, neoplasm, atheromatous lesion or restenosis.
                                                                                                                                                                                                                                                                                              E.coli strains
Claim 1; Page 48 + Page 36; 56pp; English.
An expression plasmid, pHM483, for producing MCF(76) consisting of 76 amino acids was constructed. The prod. can be used for e treating bacterial infectious diseases.
                                          17-JAN-1990 (first entry)
Peptide from human glioma cell line U-10
Glioma; leucocyte; chemotaxis; neoplasms
                                                                       P90292 standard; peptide;
P90292;
17-JAN-1990 (first entry)
                                                                                                                                                                                                                                                                                                                                                                          N-PSDB; Q30745-46.
Prodn. of polypeptide(s) having monocyte chemotactic activity using expression plasmids with E. coli elements and specific
                                                                                                                                                                                                                                                                                                                                                                                                                      (DAIN ) DAINIPPON PHARM CO LTD.
Fukui T, Matsuo N, Yamada M, Yamagishi
WPI: 92-398864/48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R28660
R28660;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Kunkel
WPI; 97
Key
modified_site
                             Human.
                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RBS; promoter; tryptophan; repressor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Plasmid; monocyte chemotactic factor; MCF; translation; termination; terminator; initiation; ribosome binding s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (MLCW ) MALLINCKRODT MEDICAL INC.
(UNMI ) UNIV MICHIGAN.
Kunkel SL, Lyle LR, Strieter RA
                                                                                                                                                                                                                 97.9%;
Local Similarity 91.7%;
hes 11; Conservativo
                                                                                                                                                                                50 eicadpkqkwvq 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 50 eicadpkqkwvq 61
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                                                                                                                                                                  EICADPKQKWIQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        h 97.9%;
Similarity 91.7%;
11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     76 AA;
                                                                                                                                                                                                                                                                                       76 AA;
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               Location/Qualifiers
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                                                           cell line U-105MG
                                                                                                        76
                                                                                                                                                                                                                          Pred.
1; 1
                                                                                                                                                                                                                                          Score 95; DB 5; I
Pred. No. 8.74e-03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 95; DB 21;
Pred. No. 8.74e-03;
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                                                                                                                                                                                                                                                        Length 76;
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Best Local Similarity 91.7%;
Matches 11; Conservative
                                                                                                                Query Match 97.9%;
Best Local Similarity 91.7%;
Matches 11; Conservative
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20-JUL-1989; 030423.
31-JAN-1989; US-304234.
31-JAN-1989; US-304234.
(USSH) US Dept. of Health and H
Yoshimura T; Robinson E; Appell.
WPI; 89-263501/36.
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18-MAY-1995.
07-NOV-1994; U12874.
12-NOV-1993; US-152301.
(DAND ) DANA FARBER CANCER II
ROllins B, Zhang YJ;
WPI; 95-215051/28.
                                                                                                                                                                                                                          Claim 3; Page 11; 22pp; English.

Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.

The peptides can be used to prevent restenosis, e.g. in patients sequence 76 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 disulfide_bond disulfide_bond
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (28-Asp) MCP-1.
monocyte chemoattractant protein; MCP-1; mutant; restenosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; page 3; 46pp; English.
Peptide 1s derived from glioma cell line U-105MG (ATCC CRL9932) or from leukocytes and has mol. wt. 8400. Used to treat infections and neoplasms. Sequence 76 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      modified_site
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/note= "pyroglutamic acid"
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Pred. No. 8.74e-03
                                                                                                                                           Score 95; DB 14;
Pred. No. 8.74e-03;
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lla E; Leonard E.
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05-NOV-1996.
22-CCT-1992; 965678.
22-CCT-1992; US-965678.
27-MAY-1994; US-250958.
(UNMI) UNIV MICHIGAN.
Kunkel SL, Lyle LR, Strieter RM;
WPI; 96-556405/50.
                                                                                                                                                                                                                                                                                                                                                                   28-APR-1994.
20-OCT-1993;
22-OCT-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) - useful for therapy or diagnosis of restenosis, etc.

Disclosure; Column 13-14; 16pp; English.

This is the amino acid sequence of the human monocyte chemoattractant protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent stimulator of monocyte chemotaxis and is produced by injured vascular smooth cells thus attracting monocytes and macrophages which infiltrate the injured area and release growth factor. This causes proliferation of the vascular smooth cells resulting in restenosis. The gene sequence can be used to generate antisense sequences e.g. T4803-7, which can be used to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or macrophages, or smooth muscle cells, esp. in order to prevent vascular
Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and peptide(s) is used for inhibiting, treating or imaging areas of vascular restenosis or potential restenosis. Disclosure; Page 5; 42pp; English.

The sequences given in R53398-99 represent sense and antisense monocyte chemotactic protein-1 (MCP-1) respectively. These
                                                                                                                                                                                                                                 Lyle LR;
WPI; 94-151314/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "encoded by misc_difference 51
                                                                                                                                                                                                                                                                                                                               20-OCT-1993; U10074.
22-OCT-1992; US-965678.
(MLCW ) MALLINCKRODT ME
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Human; monocyte chemoattractant protein; antisense; inhibition; mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
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91.78;
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No. 8.74e-03;
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Best Local S
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Best Local S
Matches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 6; Page 11; 22pp; English.

Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.

The peptides can be used to prevent restenosis, e.g. in patients
                                            LT 14
R87676 standard; protein; 76 AA.
R87676;
21-FEB-1996 (first entry)
(24-Arg) MCP-1.
monocyte chemoattractant protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-NOV-1993; US-152301.
(DAND ) DANA FARBER CANCER INST
ROLLINS B, Zhang YJ;
WPI; 95-215051/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            oligonucleotides may be labelled with a radionuclide and use therapeutically for the treatment of vascular restenosis. Radiolabelled antisense MCP-1 compounds may be constructed using high energy alpha or beta emitting isotopes rather than the gamma emitters cutomarily used for diagnostic purposes. Antisense MCP-1 compounds inactivate MCP-1 or inhibit production of MCP-1 so that monocytes are not attracted to the area of vascular injury and proliferation of vascular cells is inhibited.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - a capable of inhibiting the monocyte chemo-attractant activity endogenous MCP-1 and can be used to treat restenosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R87677
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                         angioplasty.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        undergoing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-NOV-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  monocyte chemoattractant protein; MCP-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          modified_site
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-FEB-1996 (first
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                                                                                                                                                                                                                                                                                                                                                                          Similarity
11; Conser
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76 AA;
                                                                                                                                                                                                                                                                                                                                                                          97.9%;
llarity 91.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              U12874
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12..52
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91.7%;
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                                                                                                                                                                                                                                                                                                                                                                        Score 95; DB 14
Pred. No. 8.74e-
1; Mismatches
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Pred. No. 8.74e-03;
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                                                     MCP-1;
                                                                                                                                                                                                                                                                                                                                                               DB 14; L-
8.74e-03;
8.79 0;
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                                                     mutant;
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Inaging

Stribsclosure; Page 5; 50pp; English.

Chisclosure; Page 6; English.

Chisclosure; Page 7; English
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Best Local (
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disulfide_bond 12..52
w09513295-A1.
18-MAY-1995.
07-NOV-1994; U12874.
12-NOV-1993; US-152301.
(DAND ) DANA FARBER CANCER INST INC.
ROllins B, Zhang YJ;
WPI; 95-215051/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis Claim 5; Page 11; 22pp; English.

Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28 Tyr by Leu and/or 30 Arg by Val. Preferred mutations substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
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R86859 standard; Protein; R86859;
R86859;
20-MAR-1996 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New anti:sense oligo:nucleotide(s) and peptide(s) for inhibiting restenosis - are directed against C-C family cytokine(s) such a monocyte chemotactic protein, opt. radio:labelled for therapy or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Antisense; monocyte chemotattic protein 1; MCP-1; "C-C" family; chemoattractant cytokine; chemokine; monocyte; chemotaxis; vascular smooth muscle cell; proliferation; restenosis; balloon angioplasty.
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WO9519167-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-JUL-1995.
13-JAN-1995; U00605.
14-JAN-1994; US-182917
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WPI; 95-263703/34.
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11; Conser
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76 AA;
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11..36
12..52
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Pred. No. 8.74e-03;
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macrophage;
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" 11; Conserv
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Best Local
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                                                                                     US7330446-A.
25-JUL-1989;
30-MAR-1989; 330446.
30-MAR-1989; US-330446.
(USSH) US Dept. Health a
Yoshimura T, Robinson EA
WPI; 89-300683/41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-NOV-1992.
17-NOV-1992; J00550.
27-APR-1992; JP-135950.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               An expression plasmid, phMC076 for producing MCF(76) consisting of 76 amino acids was constructed. DNA encoding MCF(776) was prepd. using a recombinant plasmid phMCF7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; Q30748.

Prodn. of polypeptide(s) having monocyte chemotactic activity using expression plasmids with E. coli elements and specific E.coli strains
Human derived monocyte che glioma cell line U-105MG Disclosure; fig 2; 66pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09-MAY-1991; JP-135950.
(DAINIPPON PHARM CO LTD.
FURNI T. Matsuo N. Yamada M. Yamagishi
WPI; 92-398864/48.
                                                                                                                                                                                                                                                                                                                               Human monocyte chemo-attractant peptide-1. Human monocyte chemo-attractant peptide; inflammatory disease;
                                                                                                                                                                                                                                                                                                                                                                          /I 17
P95387 standard; protein; !
P95387;
P95387;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RBS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Plasmid; monocyte chemotactic factor; MCF; translation; termination; terminator; initiation; ribosome binding s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    T 16
R28663 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
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                                                                        N-PSDB; N91337
                                                                                                                                                                                                                                                                       protein
                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W09219737-A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         51 eicadpkqkwvq
||||||||||||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 73 eicadpkqkwvq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 EICADPKQKWIQ 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
11; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97.98;
ilarity 91.78;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers 1..23
                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /label= sig_peptide
24..99
/label= mat_protein
                                                                                                                                                                                                                                              /product=MCP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   84
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91.7%;
                                                                                                                EA,
                                                                                                                                  and
    chemo-attractant peptide prods. -
MG or peripheral blood mononuclear
p; English.
                                                                                                              d Human.
Appella
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Pred. No. 8.74e-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 95; DB 15;
Pred. No. 8.74e-03;
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                                                                                                                Ĺ
                                                                                                                  Leonard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        site;
                             leukocytes
                                               obtd. from human
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IRESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 11; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
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Best Local
                                                                            Homo sapiens.

WO950923-A.

06-APR-1995.

28-SEP-1994; CA0516.

28-SEP-1993; US-127499.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Screening for cpds. with anti-heparanase activity - by detecting inhibition of heparin or heparan sulphate degradation, potentially useful for treating arthritis, restenosis, cancer. Claim 13: Page 49: 60pp; English.
Purified heparanases, prepared under reducing conditions and activated with transglutaminase, are given in R70786-804. Most are prepared by reverse transcription of RRNA from activated human leukocytes, then cloning of the cDNA into pVL1392 baculovirus vector, and expression in Sf9 cells in the presence of reduced glutathione and dithiothreitol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This is a human-derived monoyte chemo-attractant peptide (MCP-1) sequence MCP-1 exhibits optimal chemotactic activity at a concn. of 1nM and has a mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg inflammatory disease, or for the control of neoplasms by accumulation of monocytes at the site of the infection. The corresp. DNA is obtd. by chemical synthesis, by screening reverse trascripts of mRNA from purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5. Sequence 99 AA;
                                                                                                                                                                                                                                                                                                                                                      IT 19
R73914 standard; protein;
R73914;
05-DEC-1995 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chemoattractant protein MCP-1.
MCP-1; chemoattractant; heparanase; heparin; heparan sulfate; arthritis; restenosis; cancer; wound healing.
                                                                                                                                                                                                                                        meningitis related homologous antigenic sequence; MRHAS; RV immunoassay; diagnosis; treatment; prophylactic; bacterial;
                                                                                                                                                                                                                                                                                           Human monocyte chemoattractant factor hMCP-1; chemokine; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (UPJO ) UPJOHN CO.
Hoogwerf AJ, Ledbe
WPI; 95-082239/11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-PSDB; Q85370.
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29-JUL-1993; US-099866.
13-OCT-1993; US-136117.
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09-FEB-1995.
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                            (SHAR/) SHARMA L R.
(VALS/) VAN ALSTYNE D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29-AUG-1995 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  73 eicadpkqkwvq
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standard;
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Van Alstyne D;
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larity 91.7%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        84
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91.78;
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Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 95; DB 13;
Pred. No. 8.74e-03;
1; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                            8
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.. No. 8.74e-03;
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Best Local
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23-FEB-1996; WO-U02598.
(HUMA-) HUMAN GENOME SCI INC.
Adams M. Alderson R. Applebaum E
Parmelee D, White J;
WPI; 97-435153/40.
diseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, regulates haematopoissis and generates antibodies. Labelled Ck betal0 can be used to identify its cognate receptor, while cells expressing the receptor can be used to screen compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and bone marrow failure, silicosis, prostaglandin dependent fever and bone with the silicosis, sarcoidosis, hyper-eosinophilic syndrome, lung inflammation and atherosclerosis. Ck betal0 cDNA can be used to isolate genes encoding similar peptides, in gene therapy and for chromosome identification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          detecting and preventing meningitis

Claim 47; Fig 8/10; 88pp; English.

R73914 is the chemokine Human monocyte chemoattractant factor hMCP-1.

It contains the meningitis related antigenic sequences (MRHAS) claimed in R73895 and R73907, which are recognised by a monoclonal antibody from the hybridoma Rubella virus (RV)-1. The claimed MRHAS peptides may be used in immunoassays to diagnose the presence of bacterial and/or viral meningitis agents in a sample, or in prophylactic and therapeutic meningitis treatments. The peptides may also be used as
                                                                                                                                                                                                                                               Example 11; Fig 5; 83pp; English.

The present sequence is human chemokine beta10 (Ck beta10) or The present sequence is human chemokine beta10 wariant, which can monocyte chemotactic protein 4 (MCP-4) Drol3+ variant, while a Ck bet be used to treat patients deficient in Ck beta10, while a Ck beta10 antagonist can be used to reduce excessive levels of Ck beta10 beta10 can be used to treat leukaemia, solid tumours, chronic or beta10 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-MAR-1998 (first entry)

Drol3+ chemokine betal0 or monocyte chemotactic protein 4 variant. Human; chemokine betal0; Ck betal0; treatment; antagonist; solid tumour; infection; autoimmune disease; asthma; antibody; fibrotic disease; psoriasis; neurodegenerative disease; wound healing; haematopoiesis regulation; gene therapy; chromosome identification; monocyte chemotactic protein 4;
                                                                                                                                                                                                                                                                                                                                                                                                             Polypeptide encoding chemokine beta 4 protein 4 - useful to treat tumours, a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New peptide(s) and corresp. antibodies for the treatment of meningitis - the peptide(s) corresp. to homologous antigenic sites on bacterial and viral agents and on chemokine(s), used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  vaccines against meningitis.
NB: Identified by matching c
Sequence 99 AA;
                                                                                                                                                                                                                                                                                                                                                                                                asthma and fibrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  leukaemia; MCP-4; Drol3+ variant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       73 eicadpkqkwvq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 EICADPKQKWIQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   standard; Protein;
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91.7%;
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Pred. No. 8.74e-03;
1; Mismatches C
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                                                                                                                                                                                                                                                                                                                                                                                                                 and monocyte chemotactic autoimmune disease, infect
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                                                                                                                                                                                                                                                                                            beta10. Ck
                                                                                                                                                                                                                                                                                                                                                                                                                 infection,
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Query Match Best Local S Matches 1

h 93.8%; Similarity 83.3%; 10; Conservative

Score 91; DB 27; Le Pred. No. 2.31e-02; 2; Mismatches 0;

Length 71;

Indels

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Gaps

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45

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PPR 22:
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                          W22672;
19-MAR-1998 (first entry)
19-MAR-1998 (first entry)
Bac 2 Chemokine beta10 or monocyte chemotactic protein 4 variant.
Human; chemokine beta10; Ck beta10; treatment; antagonist;
solid tumour; infection; autoimmune disease; asthma; antibody;
fibrotic disease; psoriasis; neurodegenerative disease;
wound healing; haematopoiesis regulation; gene therapy;
chromosome identification; monocyte chemotactic protein 4;
WOY/JE-
28-AUG-1997.
23-FEB-1996; U02598.
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Example 11; Fig 5; 83pp; English.
Example 11; Fig 5; 83pp; English.
The present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) Bac 3 variant, which can be used to treat patients deficient in Ck beta10, while a Ck beta10 antagonist can be used to reduce excessive levels of Ck beta10. Ce beta10 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic
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W22673 standard; Protein;
W22673;
19-MAR-1998 (first entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Adams M, Alderson R, Applebaum E, Li
Parmelee D, White J;
WPI; 97-435153/40.
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23-FEB-1996; U02598.
23-FEB-1996; WO-U02598
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EICADPKQKWIQ
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Pred. No. 2.31e-02;
2; Mismatches 0;
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antagonist can be used to reduce excessive revers or antagonist can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic diseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, regulates haematopoiesis and generates antibodies. Labelled Ck betall can be used to identify its cognate receptor, while cells expressing the receptor can be used to screen compounds for (ant)agonist activity. The antagonist can be used to creen treat rheumatoid arthritis, autoimmune, chronic inflammatory or treat rheumatoid arthritis, autoimmune.
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The present sequence is human chemokine betal0 (Ck betal0) or monocyte chemotactic protein 4 (MCP-4) Bac 2 variant, which can used to treat patients deficient in Ck betal0, while a Ck betal0 antagonist can be used to reduce excessive levels of Ck betal0 betal0 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic or opportunistic infections.
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The present sequence is human (hemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4) Droll/2 variant, which can be used to treat patients deficient in Ck beta10, while a Ck beta10 be used to treat patients deficient in Ck beta10 (Ck beta10 antagonist can be used to reduce excessive levels of Ck beta10. Ck
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                                                                                                                                                                                                                                                                                                     Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH, Parmelee D, White J; WPI; 97-435153/40.

Polypeptide encoding chemokine beta 4 and monocyte chemotactic protein 4 - useful to treat tumours, autoimmune disease, infect asthma and fibrosis
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23-FEB-1996; WO-U02598.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    chromosome identification; monocytleukaemia; MCP-4; Droll/2 variant.
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asthma and fibrosis
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Adams M, Alderson R,
Parmelee D, White J;
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Local Similarity 83.3%;
hes 10; Conservative
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Pred. No. 2.31e-02;
2; Mismatches 0
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SExample 11; Fig 5; 83pp; English.

Chancoyte chemotactic protein 4 (MCP-4) Bac 1 variant, which can be concepted to treat patients deficient in Ck beta10, while a Ck beta10 can be used to reduce excessive levels of Ck beta10. Ck can be used to treat leukaemia, solid tumours, chronic or copportunistic infections, autoimmune diseases, asthma, fibrotic cc diseases, psoriasis and neurodegenerative diseases. It also compounds so the aling, regulates haematopoissis and generates cc antibodies. Labelled Ck beta10 can be used to of dentify its cognate compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or allocation and compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or allocation are allocation are and arthritis autoimmune, chronic fever and
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Y 25
W17665 standard; peptide; 82 mm.
W17665;
16-DEC-1997 (first entry)
Stem cell mobilising chemokine CKbeta-10.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Polypeptide encoding chemokine beta 4 and monocyte chemotactic protein 4 - useful to treat tumours, autoimmune disease, infect
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Adams M. Alderson R. Applebaum E. Li
Parmelee D. White J;
WPI: 97-435153/40.
                                                                                                                                                                                                                                                                                                              Sequence
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23-FEB-1996; WO-U02598
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1 EICADPKQKWIQ 12
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Local Similarity 83.3%;
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                                                                                                                                                                                                                                                          Local Similarity
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                                                                                                                                                                                                                                                                                                                     used to isolate genes encoding similar peptides, in gene d for chromosome identification.
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Pred. No. 2.31e-02;
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atherosclerosis. Ck betal0 cDNA
ng similar peptides, in gene ther
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2.31e-02;
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                                colony stimulating factor;
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CC an information of the present sequence represents a chemokine, CKbeta-10, which is capable components of the present sequence represents a chemokine can be used therapeutically to improve stem cell mobilisation, optionally together with a colony stimulating factor or other haematoregulatory agent. It can be used to improve stem increased level of haematopoletic cells is needed, e.g. to increase the immune response to chronic infection (particularly bacterial or parasitic), to promote wound healing, in (transplant) partients with reduced bone marrow function as a result of immunosuppressive treatment or disease, and to provide more rapid regeneration of bone marrow after treatment for neoplastic or viral classes. The induced stem cells may be harvested for subsequent return to the patient, optionally after they have been genetically manipulated co-administered with a cytotoxic drug.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 10; Conser
N-PSDB 17050.

New chemokine Ck(beta)-4 and -10 genes and polypeptide(s) - useful to treat, e.g. leukaemia, solid tumours and auto-immune diseases Claim 19; Fig 2; 53pp; English.

A novel human chemokine, Ck beta-10 (R93087), was identified as the product of a cDNA clone (T17050) isolated from a 9-wk early human tissue cDNA library. The protein is structurally related to the chemokine family. Recombinant Ck beta-10 can be obtd. by incorporating the cDNA into a vector and expression of the protein in e.g. E. coli, COS or Sf9 cells. Ck beta-10 can be used to treat in e.g. E. coli, COS or Sf9 cells. Ck beta-10 can be used to treat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chemokine beta-10; chemokine beta-4; Ck beta-10; Ck beta-4; cytokine; leukaemia; tumour; cancer; autoimmune disease; ps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (SMIK ) SMITHKLINE BEECHAM CORP.
Kreider BL, Li H, Pelus L, White JR;
WPI; 97-258956/23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    neoplastic disease;
Synthetic.
W09715594-A1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   29-FEB-1996.
23-AUG-1994; U09484.
23-AUG-1994; WO-U09484.
08-SEP-1994; ZA-006936.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               T 26
R93087 standard;
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23-OCT-1996; U16959.
24-OCT-1995; US-006051
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         asthma; allergy; wound healing; diagnosis; therapy.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               haematoregulator; immune response; bacterial infection; transplant;
                                                                                                                                                                                                                                                                                                                                                                                                                            (HUMA-) HUMAN GENOME
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /label= Sig_peptide 25..98
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Pred. No. 2.31e-02;
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                                                                                                                                                                                                                   Claim 1; Page 36-37; 47pp; English.

This polypeptide comprises human macrophage-derived monocyte chemotactic protein-5 (MCP-5), a novel C-C chemokine. Its amino acid sequence was deduced from a cDNA clone (see 190880 and 790883) isolated from a human macrophage cDNA library. A claimed method for producing MCP-5 comprises culturing a host cell that is stably transformed or transfected with MCP-5 polynucleotide. Also claimed is a hybridoma that produces a monoclonal antibody (MAD) that is specifically reactive with the mature MCP-5. MCP-5 (or its analogues and fragments) is used to enhance the immune response in cases of vounds or infections, while its inhibitors (e.g. arthritis and Crohn's disease, also for treatment of atherosclerosis, angiogenesis and tumour growth (or metastasis). The MCP-5 inhibitors can possibly also be used to reduce the damaging effects of chemo- and radio-therapy on myeloid progenitor cells, and to inhibit replication of HIV. MCP-5 can also be used to identify its cognate receptor, while MCP-5 peptides (or the analogues or receptors) are used to modulate MCP-5 activity and to identify Sequence 98 AA;
                                                                                                              Query Match 93.8%;
Best Local Similarity 83.3%;
Matches 10; Conservative
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Best Local Similarity
Matches 10; Conser
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27-MAR-1996; US-622851.
(ICOS CORP.
Godiska R, Gray PW;
WPI; 97 489645/45.
N-PSDB; T90880.
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colony formn.
Sequence 98
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Monocyte chemotactic protein 5, MCP-5; human; macrophage;
chemokine; inhibitor; antiinflammatory; atherosclerosis;
crohn's disease; arthritis; angiogenesis; tumour; metastasis;
therapy; diagnosis; medical imaging.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         T 27
W30191 standard; Protein;
W30191;
21-MAY-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Polynucleotide encoding monocyte chemotactic protein-5 - useful in treatment of e.g. inflammation, atherosclerosis, anglogenesis and
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EICADPKQKWIQ 12
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larity 83.3%;
Conservative
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/note= "(Claim 4)"
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Pred. No. 2.:
2; Mismatcl
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Pred. No.
2; Misma
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2.31e-02;
                                                                                                                                      DB 28;
2.31e-02;
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RESULT
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DT 14
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PD 2
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Schalm 1; Fig 2; 83pp; English.

Protein 4 - useful to treat tumours, autoimmune disease, infection, prasthma and fibrosis

Schalm 1; Fig 2; 83pp; English.

Protein 4 - useful to the state of the present sequence is human chemokine beta10 (Ck beta10) or monocyte chemotactic protein 4 (MCP-4), which can be used to treat common to the state of the beta10 antagonist can be used to treat leukaemia, solld tumours, chronic or opportunistic confections, autoimmune diseases, asthma, fibrotic diseases, sold tumours, chronic or opportunistic confections, autoimmune diseases, asthma, fibrotic diseases, sold tumours, chronic or opportunistic confections, autoimmune diseases, asthma fibrotic diseases wound the state of the state o
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Best Local S
Matches 1
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28-AUG-1997.
23-FEB-1996; U02598.
23-FEB-1996; WO-U02598.
(HUMA-) HUMAN GENOME SCI INC.
Adams M, Alderson R, Applebaum E, L
Parmelee D, White J;
WPJ: 97-43553/40.
                                                                                                                                                                                                                                  LT 29
R06398 standa
R06398;
R06398;
14-DEC-1990
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W22670 standard; Protein; 98
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19-MAR-1998
  WO9007863-A.
26-JUL-1990.
                                                               misc_difference
                                                                                                                             protein
                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                    Human MCF precursor.
Monocyte chemotactic factor; antibacterial; antitumour; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
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leukaemia; MCP-4.
                                                                                                                                                                                                                                                                                                                                                             72 eicadpkekwvg 83
|||||||:||:|
1 EICADPKQKWIQ 12
                                                                                                                                                                                                                                                                            standard; protein; 99
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Similarity 83.3%;
10; Conservative
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24..98
/label= mat_peptide
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1..23
                                                                                                                                              Location/Qualifiers
                                           /label=A or T
                                                                                   /note="Claim 1"
                                                                                                         /label=mature
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Pred. No.
2; Misma
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, 2.31e-02;
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Search completed: Thu Apr
Job time : 23 secs.
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Provided the protein homologous to human MCP-1 - for treating inflammation, tumours, thrombosis, and immune reactions, also for diagnosis

Scalaim 1; Page 3; 5pp; German.

Poly(A+)RNA from bull seminal vesicles was used to prepare a cDNA in the expression vector lambda gtll. 1.5 x 10(5) cDNA clones were screened with a polyclonal anti-P6 antiserum of monospecific immunoglobulin G and six positives were identified. The insert of a suitable cDNA clone, pH42, was cloned into pUCl8 and sequenced.

Chemoattractant (bMCP-1), which is a homologue of human (h)MCP-1.

Chemoattractant (bMCP-1), which is a homologue of human (h)MCP-1.

Chemoattractant (bMCP-1), which is a homologue of human (h)MCP-1.

Chemoattractant (bMCP-1), which is a homologue of human (h)MCP-1.

Chemoattractant (bMCP-1) and the central region showing 89% homology.

Sequence 76 AA;
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The sequence was deduced from the DNA sequence determined from three recombinant plasmids, pHMCF75, pHMCF75 and pHMCF79 which were isolated from a cDNA library prepd. from RNA extracted from human promyelocytic leukaemia cell line, HI-60 (ATCC CCL-240). vectors. In plasmids pHMCF7 and pHMCF29 bases 105 and 226 were T and G resp; in pHMCF25 they were C and A resp. The AA at posn. To of the precursor protein is therefore not determined and may be either Ala or Thr. The protein may be produced by recombinant DNA techniques in E.coli, and is useful as a drug for treatment of certain bacterial infectons and cancers.
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28-JAN-1993 (first entry)
Sequence of bovine P6 protein.
Monocyte chemoattractant; bovine P6-derivative; thrombosis; tumour;
inflammation therapy.
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01-JAN-1989; JP-000065.
03-FEB-1999; JP-026438.
(USDC ) US SEC OF COMMERCE.
Furtani Y, Fukui T, Junichi Y, Masaaki Y, Matsushima Oppenheim J;
WPI; 90-253802/33.
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31-JUL-1991; 125251.
31-JUL-1991; DE-125251.
(SCHA-) SCHAPER & BRUEMMER GMBH & CO
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R26580 standard; Protein; 76 AA.
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ilarity 83.3%;
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Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993–1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

MPsrch\_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:42:51 1999; MasPar time 3.31 Seconds 135.879 Million cell updates/sec

Title: >US-08-927-939-13
Description: (1-12) from US08927939.pep
Perfect Score: 97
Sequence: 1 EICADPKQKWIQ 12

Scoring table: PAM 150 Gap 15

Searched: 116738 seqs, 37463448 residues

Post-processing: Minimum Match 0% Listing first 100 summaries

pir58 1:pir1 2:pir2 3:pir3 4:pir4

Database:

Statistics: Mean 24.746; Variance 36.390; scale 0.680

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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_	95	97.9	99	N	A60299	monocyte chemoattract	4.69e-08
2	94	96.9	99	N	JC2136		8
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7	86	•	99	N	JC2417	monocyte chemoattract	•
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9	84	86.6	97	N	JC4912	eotaxin - human	1.23e-05
10	82	84.5	95	N	JN0841	interleukin-8 - dog	3.31e-05
11	82	84.5	96	N	JC2478	eotaxin - rat	3.31e-05
12	82	84.5	96	N	I48099	eotaxin precursor - g	3.31e-05
13	82	84.5	101	N	146997	hee	3.31e-05
14	82	•	101	N	S42496	interleukin 8 – sheep	
15	82	•	103	2	A53096	interleukin-8 precurs	3.31e-05
16	82	•	103	N	A44253	alveolar macrophage c	.31e-
17	81		92	N	I52322	macrophage inflammato	
18	80		99	N	JC5295	monocyte chemotactic	
19	79		101	2	146871	interleukin-8 - rabbi	1.43e-04
20	78	80.4	148	N	A30209	PDGF-inducible JE gly	•
21	77	79.4	89	N	A53497	pre-B-cell growth-sti	
22	77	79.4	89	N	153416	interleukin-8 homolog	3.76e-04
23	77	79.4	93	N	181182	cytokine - mouse	

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G700340 G700340 G70059 A47629 H69494 JC5303 JC5163 S614450 S614451 S38534 S30893 S75098 LRRTH A64682	S24281 S24281 E64101 S68364 S1737 S2737 S27373 C64611 G02428 B48225 A48225 A48225 A48225 A48225	A49494 A49494	G01540 S032393 S032393 S032393 A37024 A48148 A486439 C660407 A31767 A31767 A31767 A31767 A368730 A288730 A288730 A288730 A28730777 A3767666 D714666 D71466
hypothetical protein N-terminus of IS6110 cell surface glycopro pyruvate formate-lyas hypothetical 41.7K prultraviolet light resprobable membrane proprobable membrane procytochrome P450 76A2 nrtC protein - Synech hypothetical protein clathrin heavy chain ribosomal protein L36	ribosomal protein 136 TCA3 protein - mouse invasion protein - Ha pectate lyase (EC 4.2 beta-fructofuranosida beta-fructofuranosida beta-fructofuranosida hypothetical protein prohormone convertase plasma celi membrane probable proprotein c subtilisin-like propr subtilisin-like propr probable resistance g probable resistance g	alanine dehydrogenase polarity suppression titin, cardiac muscle HM3 protein - sheep hypothetical protein hypothetical protein hypothetical protein nypothetical protein l-aminocyclopropane-1 DNA gyrase-like prote beta-galactosidase (E probable ATP-binding hypothetical protein grovein -tyrosine-phos plaxin 3 - mouse genome polyprotein - probable ribosomal protein protein protein 136 ribosomal protein 136	infinfinfinfinfinfinfinfinfinfinfinfinfi
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#cross-references_MUID:89153605
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##molecule_type mRNA
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#journal Adv. Exp. Med. Biol. (1991) 305:47-56
#title Human monocyte chemoattractant protein-1 (MCP-1).
#cross-references_MUID:92095166
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##cross-references GB:M30816; GB
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The human homolog of the JE gene encodes a monocyte secretory
                                                                 Int. J. Cancer (1990) 45:795-797
                                                                                                       Bottazzi, B.;
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FEBS Lett. (1989) 244:487-493
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20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change
chemoattractant expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical to monocyte chemoattractant protein-1/monocyte chemotactic
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probable nonspecific
aspartate--tRNA ligas
env polyprotein - fel
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KEYWORDS
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#map_position 17q11.2-17q12
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYMORDS cytokine; glycoprotein; inflammation; pyroglu
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#journal Biochem. Biophys. Res. Commun. (1990) 167:904-909

#title Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel N-terminally processed form.

#cross-references_MJID:90211336
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#title Cloning and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCAF).

#cross-references MUID:89165862

#accession A32300
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##residues 24-28,'Q',30-99 ##label YEQ
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Mol. Cell. Biochem. (1993) 126:61-68
The expression of monocyte chemotactic protein (MCP-1) human vascular endothelium in vitro and in vivo.
                                                                                                                                                                                                                                                                                                                                                                                                           Ye, O.N.; Su, G.F.; Yuan, Y.; Huang, C.F. Chinese J. Microbiol. Immunol. (1994) 14:29-32 The PCR. cloning and sequencing of human monocyte chemoattractant protein-1 (MCP-1) gene.
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Yamada, M.; Larsen,
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#title Gene expression and cDNA cloning identified a major basic protein constituent of bovine seminal plasma as bovine monocyte-chemoattractant protein-1 (MCP-1).
#cross-references MUID:92096117
#accession A39296
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##cross-references EMBL:X79416; NID:g872312; PID:g872313
FICATION #superfamily macrophage inflammatory protein
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monocyte chemoattractant protein 1 precursor - bovine
monocyte chemotactic factor 1; seminal plasma protein Re
#formal_name Bos primigenius taurus #common_name cattle
03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
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Porcine luteal cells express monocyte chemoattractant
protein-1 (MCP-1): Analysis by polymerase chain reaction
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#formal_name Sus scrofa domestica #common_name domestic
30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
08-Sep-1997
JC2136; S57498
                                                                         Wempe, F.; Henschen, A.; Scheit,
DNA Cell Biol. (1991) 10:671-679
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                                              #authors Yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146:3483-3488
#title Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and expression in spleen cells.
#cross-references MUID:91225489
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##residues 50-68,'X',70-74,'X',76 ##label WE2
##experimental_source seminal vesicle
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##cross references GB:M84602; GB:M85264; NID:g163394; PID:g163395
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monocyte chemoattractant protein-1 - bovine
#formal_name Bos primigenius indicus #common_name zebu <
20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
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Characterization of the bovine monocyte
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##cross-references GDB:138473; OMIM:158106
ap_position 17g11-17g12
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##cross-references EMBL:X71087; NID:9288396; PID:9288397
This protein induces proteinase secretion and chemo'
macrophages and monocytes.
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Minty, A.; Chalon, P.; Guillemot, J.C.; Kaghad, M.; Liauzun, P.; Magazin, M.; Miloux, B.; Minty, C.; Ramond, P.; Vita, P.; Lupker, J.; Shire, D.; Ferrara, P.; Caput, D. submitted to the EMBL Data Library, March 1993

Molecular cloning of MCP-3: a human monocyte-derived monocyte chemoattractant protein.
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Human monocyte chemotactic protein-3 (MCP-3): Molecular
cloning of the cDNA and comparison with other chemokines.
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Genomics (1994) 21:403-408
The human MCP-3 gene (SCNA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome
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cytokine; glycoprotein;
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##experimental_source corpus luteum
IFICATION #superfamily macrophage inflammatory
                                                                                                                                                       ##molecule_type mRNA
##residues 1-120 ##label RES
##cross-references GB:LO4985; NID:g349820;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ##molecule_type mRNA
##residues 1-99 ##label
                                                                                                                                                                                                            ##status
                           71 EVCADPTQKWVQ 82
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EICADPKQKWIQ 12
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monocyte chemoattractant protein-1 - guinea pig
#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   88.7%;
llarity 75.0%;
Conservative
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JC2417
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Biochem. Biophys. Res. Commun. (1994) 205:148-153

Porcine luteal cells express monocyte chemoattractant

protein-2 (MCP-2): Analysis by cDNA cloning and northern
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monocyte chemoattractant protein-2 - pig
#formal name Sus scrofa domestica #common_name
24.Feb-1995 #sequence_revision 24.Feb-1995 #tex
                                                                                                           #superfamily #length 120
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                                                      Conservative
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                                                                                                                                                                                                         preliminary;
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75.0%;
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#molecular-weight 13741
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Pred. No. 4.56e-06;
2; Mismatches 1;
                                                                   Score 86; DB 2; L
Pred. No. 4.56e-06;
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Best Local
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##molecule_type DNA
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##experimental_source dermal fibroblast
This protein has eosinophil specific chemotatic activity.
FICATION #superfamily macrophage inflammatory protein
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Local Similarity 66.7%;
                                                                                                                                                  75 EVCLDPKEKWVQ 86
                                                                                                                                                                                              Local Similarity
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1 EICADPKQKWIQ
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                                                                                                                                                                                                                                                                                                     This protein is a polymorphonuclear leukocyles chemotactic factor and is involved in the host defense function.
JC2478 #type compiece
eotaxin - rat
eotaxin - rat
#formal_name Rattus norvegicus #common_name Norway rat
                                                                                                                                                                                                                                                                                                                                                                                Gene (1993) 131:305-306
Cloning of a canine gene homologous
interleukin-8-encoding gene.
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                                                                                                                                                                                                                                          22/1; 67/2 #superfamily beta-thromboglobulin #length 95 #molecular-weight 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        interleukin-8 dog
#formal_name Canis lupus familiaris #common_name
19-May-1994 #sequence_revision 19-May-1994 #text_
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01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change
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larity 66.7%;
Conservative
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                                                                                                                                                                               Pred.
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Pred. No. 1.23e-
3; Mismatches
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No. 1.23e-05;
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Best Local Similarity 81.8%;
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#title
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 #authors
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[FICATION #superfamily macrophage inflammatory protein #length 96 #molecular-weight 10753 #checksu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ##residues 17 1-96 ##label JOS ##cross-references EMBL:X77603; NID:g602551; PID:g602552 ##cross-references EMBL:X77603; NID:g602551; PID:g602552 This protein is identified as a potent eosinophil chemoattractant. IFICATION #superfamily macrophage inflammatory protein
                                                                                                                                                                                                                                                                                                                                                                                             ##residues
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Local Similarity 81.8%;
hes 9; Conservative
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J. Exp. Med. (1995) 181:1211-1216

Constitutive and allergen-induced expression
                                                                146997 #type complete
interleukin-8 - sheep
#formal_name Ovis sp. #common_name sheep
21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change
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eotaxin precursor - guinea pig
#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
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Biochem. Biophys. Res. Commun. (1994) 205.788-794
Eotaxin: Cloning of an eosinophil chemoattractant cytokine
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JC2478
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#product eotaxin #status predicted #label MAT\
#binding_site carbohydrate (Thr) (covalent) #status
 H.F.; Yoshimura,
                                                                                                                                                                                                                                                                                                                                                                                                                              preliminary; translated
                                                                                                                                                                                                                                                                 Score 82; DB 2; Lei
Pred. No. 3.31e-05;
1; Mismatches 1;
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 Wood, P.R.; Colditz,
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#title Cloning, sequencing, expression and inflammatory activity
skin of ovine interleukin-8.
#cross-references MUID:95137691
#accession I46997
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##residues 1-103 ##label LIN ##cross-references GB:M86923; NID:g164520; P#CICATION #superfamily beta-thromboglobulin
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IFICATION #superfamily beta-thromboglobulin
#length 101 #molecular-weight 11292 #checksum
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Similarity 66.7%;
8; Conservative
                                                                                                   Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; M.J.; Weiss, D.J.; Murtaugh, M.P.
J. Biol. Chem. (1994) 269:77-85
Regulation of interleukin-8 expression in porcine macrophages by bacterial lipopolysaccharide.
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#common_name domestic sheep 
06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
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#superfamily beta-thromboglobulin
#length 101 #molecular-weight 11292 #checksum
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#formal_name Sus scrota domestica #common_name domestic
02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change
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3; Mismatches 1
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#cross-references MUID:95298037
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#accession A44253
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                                                                                                ##cross-references EMBL:U22414; NID:g790632; PID:g790633
[FICATION #superfamily macrophage inflammatory protein #length 92 #molecular-weight 10335 #checksum
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##molecule_type mRNA
1-92 ##label RES
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##residues 1-103 ##label GOO
##experimental_source alveolar macrophage
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#superfamily beta-thromboglobulin
#length 103 #molecular-weight 11677
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macrophage inflammatory protein-lalpha - rat
#formal_name Rattus norvegicus #common_name Norway rat
29-May-1998 #sequence_revision 29-May-1998 #text_change
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              alveolar macrophage chemotactic factor-I (AMCF-I)
interleukin-8 homolog - pig
#formal_name Sus scrofa domestica #common_name domestic pig
30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change
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                                                                                                                                                                                                                                                        Shi, M.M.; Godleski, J.J.; Paulauskis, J.D.
Biochem. Biophys. Res. Commun. (1995) 211:289-295
Molecular cloning and posttranscriptional regulation of macrophage inflammatory protein-1 alpha in alveolar
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                                                                                            #journal #title
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          #authors Yoshimura, T.; Yuhki, N.

# journal J. Immunol. (1991) 146:3483-3488

# title Neutrophil attractant/activation protein-1 and monocyte

# total compact tractant protein-1 in rabbit; cDNA cloning and their

expression in spleen cells.

# cross-references MUID:91225489
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##cross-references GB:Y10802; NID:g1924937; PID:e294088; PID:g1924938

##experimental_source bone marrow

This protein belongs to the beta-chemokine family which is one of
the major HIV-suppressive factors. It plays roles in autoimmune
processes such as multiple sclerosis and rheumatoid arthritis an
in tumor biology, and contribute to the trafficking and
recuitment of the responsive cells.
                                                                                                                                                                                                                                     ##residues 1-101 ##label YOS
##cross-references GB:M57439; NID:g165552; PID:g165553
#PACE S13052
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Beaubien, B.C.; Collins, P.D.; Jose, P.J.; Totty, N.F.; Hsuan, J.; Waterfield, M.D.; Williams, T.J. Biochem. J. (1990) 271:797-801
A novel neutrophil chemoattractant generated during an inflammatory reaction in the rabbit peritoneal cavity vivo. Purification, partial amino acid sequence and
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P.; Van Aelst, I.; Van Damme, J.; Opdenakker, G.
Biochem. Biophys. Res. Commun. (1997) 231:726-730
Human monocyte chemotactic protein-2: cDNA cloning and
regulated expression of mRNA in mesenchymal cells.
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#formal_name Oryctolagus cuniculus #common
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#superfamily macrophage inflammatory protein
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monocyte chemotactic protein-2 - human
ftormal_name Homo sapiens #common_name man
02_May-1997_#sequence_revision 18-Jul-1997 #text_change
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Pred. No. 8.82e-05;
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#cross-references MUID:88234501
##molecular A30209
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#*residues 1-148 ##label KA2
#*cross-references GB:J04467; NID:g193488; PID:g387169
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##cross-references GB:M19681; NID:g193486; PID:g387168; GB:M19682
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#superfamily macrophage inflammatory protein
cytokine; glycoprotein
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A44771
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J. Biol. Chem. (1989) 264:679-682
Platelet-Gerived growth factor-inducible gene JE is a member of a family of small inducible genes related to platelet
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                                            A53497 #type complete
pre-B-cell growth-stimulating factor precursor - mouse
#formal_name Mus musculus #common_name house mouse
02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change
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 A53497; I59582
A53497
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    predicted
#length 148 #molecular-weight 16326 #checksum 5278
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23-33,'X',35,'X',37-46,'X',48-49,'I',51-53 ##label BEA
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Pred. No. 1.43e-04
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2.32e-04;
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Best Local Similarity 66.7%;
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#journal
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#journal Exp. Cell Res. (1994) 215:284-293

#title Molecular cloning of TPAR1, a gene whose expression is

repressed by the tumor promoter 12-0-tetradecanoylphorbol

13-acetate (TPA).

#cross-references MUID:95073497
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#title Signal sequence trap: a cloning strategy for proteins and type I membrane proteins.
#cross-references_MUID:93342488
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##molecule_type mRNA
##residues 1-89 ##label RES
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##residue~
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Proc. Natl. Acad. Sci. U.S.A. (1994) 91:2305-2309
Molecular cloning and structure of a pre-B-cell
growth-stimulating factor.
A53497
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#length 89
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#formal_name Mus musculus #common_name house mouse 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_c
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interleukin-8 homolog - mouse
#formal_name Mus sp. #common_name mouse
02_Aug-1996 #sequence_revision 02-Aug-1996
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Pred. No. 3.76e-04;
2; Mismatches
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Pred. No. 3.76e-04;
2; Mismatches 2
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Best Local Similarity 66.78;
                                FERENCE $11685
Fauthors Grove, M.; Lowe, S.; Graham, G.; Pragnell, I.; Plumb, M.
Fjournal Nucleic Acids Res. (1990) 18:5561
Sequence of the murine haemopoietic stem cell
#title inhibitor/macrophage inflammatory protein 1-alpha gene.
Fcross-references MUID:91016858
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#title
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Similarity 66.7%;
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#formal_name Homo sapiens #common_name man
21-Dec-1996 #sequence_revision 06-Jun-1997
17-Jul-1998
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Science (1993) 261:600-603
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Honjo, T.
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17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change
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Submitted to the EMBL Data Library, October 1994
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1685; A32393; S04533; A53885; A30552;
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##molecule_type mRNA
##molecule_type mRNA
1-21,'L',23-61,'A',63-92 ##label BRO
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#title
                                       ERENCE A27596

#authors Wolpe, S.D.; Davatelis, G.; Sherry, B.; Beutler, B.; Hesse, D.G.; Nguyen, H.T.; Moldawer, L.L.; Nathan, C.F.; Lowry, S.F.; Cerami, A. S.F.; Cerami, A. J. Exp. Med. (1988) 167:570-581

#title Macrophages secrete a novel heparin-binding protein with inflammatory and neutrophil chemokinetic properties.

#cross-references_MUID:88154745
                                                                                                                                                                                                                                                                                                                                             #journal J. Exp. Med. (1988) 168:2251-2259
#title Resolution of the two components of macrophage inflammatory protein 1, and cloning and characterization of one of those components, macrophage inflammatory protein 1 beta.

*cross-references MUID:89067830
*accession PS0303
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#contents
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#title Cloning and characterization of a cDNA for murine macrophage inflammatory protein (MIP), a novel monokine with inflammatory and chemokinetic properties.

#cross-references MUID:88258380

#accession S04533
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#journal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967
#title cDNA sequence of two inducible T-cell genes.
#cross-references MUID:89184547
#accession A32393
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##note the authors translated the codon GAG for residue 49

Asp and ATT for residue 91 as Asn

the sequence has been corrected in reference A53885
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##note the authors' translation of the nucleotide sequence
differs at several positions from the sequence given
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##residues 1-48,'E',50-90,'I',92 ##label DA2
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A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocyte and fibroblast-derived inflammatory agents, growth factors, and indicators of various activation processes.
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Davatelis, G.; Wolpe, S.D.; Masiarz, F.; Coit, D.; Cerami,
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Best Local S
Matches
                                                                                                                                                                                                                                 #authors Yoshimura, T.; Takeya, M.; Takahashi, K.
#journal Biochem. Biophys. Res. Commun. (1991) 174:504-509
#title Molecular cloning of rat monocyte chemoattractant protein-1
(MCP-1) and its expression in rat spleen cells and tumor
cell lines.
#cross-references MUID:91128376
#accession JN0128
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#accession S07723
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#accession 156104
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                                                                                                       ##residues 1-148 ##label YOS
##cross-references GB:M57441; NID:g205333; PID:g205334
##experimental_source spleen cells
the authors translated the codon GAA f
##note Lys and GCT for residue 63 as Leu
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This protein is a monokine.
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Local Similarity 58.3%;
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Widmer, U.; Yang, Z.; van Deventer,
Sherry, B.; Cerami, A.
                                        #superfamily macrophage inflammatory protein
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Analysis of the rat JE gene promoter identifies an AP-1 binding site essential for basal expression but not for TPA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               monocyte chemoattractant protein-1
#formal_name Rattus norvegicus #common_name Norway rat
29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change
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#product macrophage inflammatory protein #status
experimental #label MAT
#length 92 #molecular-weight 10345 #checksum 5009
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                                                                 26/1;
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immediate-early serum-responsive protein JE -
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Pred. No. 1.57e-03;
4; Mismatches 1
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#title Molecular cloning of a human monocyte-derived neutrophil chemotactic factor (MDNCF) and the induction of MDNCF mRNA by interleukin 1 and tumor necrosis factor.
#cross-references_MUID:88258376
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#accession A32791
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#accession A37034
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##molecule_type mRNA
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Local Similarity 66.7%;
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beta-thromboglobulin-like protein; fibroblast-derived
neutrophil-activating factor alpha; lung carcinoma-derived
chemotaxin; lymphocyte-derived neutrophil-activating
factor; monocyte-derived neutrophil chemotactic factor;
monocyte-derived neutrophil-activating factor
#formal_name Homo sapiens #common_name man
08-Dec-1992 #sequence_revision 08-Dec-1992 #text_change
                                                        King, C.H.; Gordon, G. submitted to the EMBL S37634
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J. Immunol. (1989) 143:1366-1371
Genomic structure of the human monocyte-derived neutrophil chemotactic factor IL-8.
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A37034
                                                                                                                                                                                                                                                                       Regulation of the mRNA for monocyte-derived neutrophil-activating peptide in differentiating HL60
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                                                                                                                         S37634
                                                                                                                                                                                                                                                                                                                Kowalski, J.; Denhardt, D.T.
Mol. Cell. Biol. (1989) 9:1946-1957
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#status predicted #label MAT
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                                                                                              G.S.; Konieczkowski, M.;
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##cross-references EMBL:Z11686; NID:g33958; PID:g33959
REFERENCE PL0107
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Appella, E.; Oppenheim, J.J.; Leonard, E.J.
#journal Proc. Natl. Acad. Sci. U.S.A. (1987) 84:9233-9237
#title Purification of a human monocyte-derived neutrophil chemotactic factor that has peptide sequence simil other host defense cytokines.
#cross-references MUID:88097462
#accession A39960
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# journal J. Exp. Med. (1989) 169:1895-1901

# title Purification and partial primary sequence of a chemotactic protein for polymorphonuclear leukocytes derived from human lung giant ceil carcinoma LU65C ceils.

# cross-references MUID:89279141

# accession PL0107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       #journal J. Immunol. (1990) 144:2223-2232
#title IL-lalpha or tumor necrosis factor-alpha stimulate release three NAP-1/IL-8-related neutrophil chemotactic proteins human dermal fibroblasts.
#cross-references MUID:90187866
#accession A60401
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Structure determination of a human lymphocyte derived
neutrophil activating peptide (LYNAP).
#cross-references_MUID:88162914
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#residues 23-32,'XR',35,'X',37-52,'L',54 ##label
##experimental_source lung giant cell carcinoma LU65C
                                                                                                                                    ##residues
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##residues 23-32 ##label SCH

##experimental_source dermal fibroblasts

##experimental_source dermal fibroblasts

##experimental_source dermal fibroblasts

##note a minor component of this material (15%) includes

##note a minor component of this material (15%) includes
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##residues 28-59 ##label WAL
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##residues 28-69 ##label YOS
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                 Nakagawa, H.; Hatakeyama, S.; Ikesue, FEBS Lett. (1991) 282:412-414
Generation of interleukin-8 by plasmin
                                                                                                                                                                                                                                            Opdenakker, G.; Billiau, A.
Eur. J. Immunol. (1989) 19:1189-1194
The chemotactic activity for granulocytes produced by virally infected fibroblasts is identical to monocyte-derived
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AVLPR-interleukin-8, the human fibroblast-derived
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                                                    K.; Mizumo, S.; Suzuki, K.
Immunol. Lett. (1990) 24:155-170
Coding region structure of interleukin-8 gene of human lung
giant cell carcinoma LU65C cells that produce
LUCT/interliukin-8: homogeneity in interleuki-8 genes.
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Blochem. J. (1989) 259:585-588
Inflammatory cytokines induce synthesis and secretion protein and a neutrophil chemotactic factor but not beta-2--microglobulin in human synovial cells and
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A novel, NH-2-terminal sequence-characterized human monokine possessing neutrophil chemotactic, skin-reactive, and granulocytosis-promoting activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Car, B.D.; Baggiolini, M.; Walz, A.
Biochem. J. (1991) 275:581-584
Formation of neutrophil-activating peptide 2 from
platelet-derived connective-tissue-activating pe
by different tissue proteinases.
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Mol. Immunol. (1989) 26:87-93
Three forms of monocyte-derived neutrophil chemotactic (MDNCF) distinguished by different lengths of the amino-terminal sequence.
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Purification of granulocyte chemotactic peptide/interleukin-8 reveals N-terminal sequence heterogeneity similar to that of beta-thromboglobulin.
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#journal J. Immunol. (1994) 152:1182-1189

#title Cloning, genomic organization, and chrom

for the Scya5 gene encoding the murine

#cross-references MUID:94132613
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##molecule_type mRNA
##residues 1-18,'A',20-91 ##label SCH
##experimental_source macrophage cell line PU5-1.8
##experimental_source extracted from NCBI backbone
##note NCBIP:106770)
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#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
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148148
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Molecular cloning and expression of the murine cytokine: structural and functional conservat mouse and man.
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#length 101 #molecular-weight 11
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J. Immunol. (1993) 151:6225-6236
CDNA cloning and expression of guinea attractant protein-1 (NAP-1): NAP-1
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is highly conserved
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Matches
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Best Local Similarity 50.0%;
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24-91
                                                                                                                                                                                                                                                    #authors Sporn, S.A.; Eierman, D.F.; Johnson, C.E.; Morris, J.;

Martin, G.; Ladner, M.; Haskill, S.

#journal J. Immunol. (1990) 144:4434-4441

#title Monocyte adherence results in selective induction of novel genes sharing homology with mediators of inflammation and tissue repair.

#cross-references_MUID:90257367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ERENCE 14854
Shin, H.S.; Drysdale, B.E.; Shin, M.L.; Noble, P.W.; Fisher,
S.N.; Paznekas, W.A.
#journal Mol. Cell. Biol. (1994) 14:2914-2925
#title Definition of a lipopolysaccharide-responsive element in the
"finition of MuRantes and crg-2."
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                                                                                                                                                                    ##status preliminary; not compared with conceptual translation
##molecule_type mRNA
##residues 1-50 ##label SPO
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30 QVCADPSESWVQ 41 ::|:|:
                                                                           Match 72.2%;
Local Similarity 50.0%;
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#length 50 #checksum 9927
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#product monocyte chemoattractant cytokine RANTES
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#length 91 #molecular-weight 10071 #checksum 3010
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Kidney Int. (1992) 41:220-225
Isolation and characterization of cDNA from renal tubular epithelium encoding murine Rantes: A small intercrine from
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Pred. No. 1.01e-02;
4; Mismatches 2
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Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

MPsrch\_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:41:37 1999; MasPar time 2.31 Seconds 139.459 Million cell updates/sec

Tabular output not generated.

Title: >US-08-927-939-13
Description: (1-12) from US08927939.pep
Perfect Score: 97
Sequence: 1 EICADPKQKWIQ 12

Scoring table: PAM 150 Gap 15

Searched: 74019 seqs, 26840295 residues

Post-processing: Minimum Match 0% Listing first 100 summaries

Database: swiss-prot36 1:swissprot

Statistics: Mean 25.540; Variance 32.357; scale 0.789

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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1	95	97.9	99	ь ;	MCP1_HUMAN	MONOCYTE CHEMOTACTIC P	1.15e-09	
· N	95	97.9	101	$\vdash$	MCP1_CANFA	CHEMOTACTIC	1.15e-09	
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4-	92	94.8	99	Н	MCP2_BOVIN		6.73e-09	
, U	91	93.8	98	ب	MCP4_HUMAN	MONOCYTE CHEMOTACTIC P	1.21e-08	
٥	90	92.8	99	۳	MCPA_BOVIN	MONOCYTE CHEMOTACTIC P	2.16e-08	
7	89	91.8	125	-	MCP1_RABIT	MONOCYTE CHEMOTACTIC P		
000	80	90.7	97	۲	EOTA_RAT	EOTAXIN PRECURSOR (EOS	6.85e-08	
, v	0 00	90.7	97	۲	EOTA_MOUSE	EOTAXIN PRECURSOR (EOS	6.85e-08	
10	0 00	90.7	99	-	MCP3_HUMAN	MONOCYTE CHEMOTACTIC P	6.85e-08	
11	0 0	89.7	97	Н	EOTA_HUMAN	EOTAXIN PRECURSOR (EOS	1.22e-07	
12	80	٠	99	۲	MCP2_PIG	MONOCYTE CHEMOTACTIC P	2.16e-07	
13	8 6	•	120	Н	MCP1_CAVPO	MONOCYTE CHEMOTACTIC P	2.16e-07	
14	84	86.6	104	۲	MCP5_MOUSE	MONOCYTE CHEMOTACTIC P		
15	82	84.5	96	-	EOTA_CAVPO	EOTAXIN PRECURSOR (EOS	2.07e-06	
16	82	84.5	101	Н	IL8_CANFA	INTERLEUKIN-8 PRECURSO		
17	82	84.5	101	μ	IL8_SHEEP	INTERLEUKIN-8 PRECURSO		
18	82	84.5	103	μ	IL8_PIG	INTERLEUKIN-8 PRECURSO	2.07e-06	
19	81	83.5	92	μ	MI1A_RAT	MACROPHAGE INFLAMMATOR	3.63e-06	
20	80	82.5	74	μ	MCPB_BOVIN	MONOCYTE CHEMOTACTIC P		
21	80	82.5	99	۲	MCP2_HUMAN	MONOCYTE CHEMOTACTIC P	6.33e-06	
22	79	81.4	89	ب	MIP4_HUMAN	MACROPHAGE INFLAMMATOR	1.10e-05	
23	79	81.4	101	۳	IL8_BOVIN	INTERLEUKIN-8 PRECURSO	1.10e-05	

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DECOCK B.
BIOCHEM.
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LI Y.S., SHY
KOLATTUKUDY
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HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
                                                                                                                          SEQUENCE OF 24-99.
MEDLINE; 89184525.
MOBINSON E.A., YOSHIMURA T., LEONARD SHABANOWITZ J., HUNT D.F., APPELLA E. PROC. NATL. ACAD. SCI. U.S.A. 86:1880[9]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
MEDLINE; 91207938.
CHANG H.C., HSU F., FREEMAN G.J.,
INT. IMMUNOL. 1:388-399(1989).
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SHYY Y.J., LI Y.S.,
BIOCHEM. BIOPHYS. F
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MEDLINE; 89165862.

FURUTANI Y., NOWDRA H., NOTAKE M., OYAMADA Y., FU
LARSEN C.G., OPPENHEIM J.J., MARSUSHIMA K.;

BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).
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01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)
(MONOCYTE CHEMOATTRACTANT PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE)
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01-JAN-1990 (REL.
15-JUL-1998 (REL.
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LEONARD E.J.;
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    3D-STRUCTURE MODELLING
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                                         E OF 29-53 AND 8; 90211336.
B., CONINGS R.,
BIOPHYS. RES.
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UDY P.E.;
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BIOL. 9:4687
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RES. COMMUN. 169:346-351(1990)
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                                                                                                                                                                                                                                                            ) E.J.;
305:47-56(1991).
                                                                                                       82-92
                                         LENAERTS J.-P., BILIAU A., COMMUN. 167:904-909(1990).
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                                                                                                                                          86:1850-1854(1989)
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SHIMA K.;
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MIM; 158105;
PROSITE; PSOC
CYTOKINE; CHE
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HANDEL T.M.,
BIOCHEMISTRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.;
J. BIOL. CHEM. 269:15918-15924(1994).
[15]
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PIR;
PDB;
PDB;
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PDB;
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MEDLINE; 97053697.

KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;

FEBS LETT. 395:277-282(1996).

1: FUNCTION: CHEMOTACTIC FACCTOR THAT ATTRACTS MONOCYTES AND BASOPHILS

BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR

ACTIVITY: HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES

CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID

ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT

OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
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[11]
X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
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GRONENBORN A.M., CLORE G.M.;
PROTEIN ENG. 4:263-269(1991).
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LUBKOWSKI J., BUJI
                                                                                                                                        CHAIN
                                                                                                                                                                 SIGNAL
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ATHEROSCLEROSIS.

SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.

SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.

SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.

SUBUNIT: MONOMER OF THE AMINO- TERMINAL RESIDUE CONVERTS

CELL SELECTIVITY. DELETION OF THE AMINO- TERMINAL RESIDUE CONVERTS

IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOATTRACTANT.

FYMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE)
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14-OCT-96.
14-OCT-96.
15-OCT-94.
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35:6569-6584(1996).
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XIS; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
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4:64-69(1997).
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MISSING:
MISSING:
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A -> T.
                                                                                                                                          MONOCYTE CHEMOTACTIC PROTEIN
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DISULFID
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01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOATTRACTANT PROTEIN-1).
LT 3
MCP1_PIG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE=JUGULAR VEIN ENDOTHELIAL; MEDLINE; 97176620.
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EUTHERIA; CARNIVORA.
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01-OCT-1996
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                                                                                                          73 EICADPKQKWVQ 84
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TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAI
VEINS, AND INFILTRATING LEUKOCYTES.
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FUNCTION: CHEMOTACTIC FÁCTOR THAT ATTRACTS MONOCYTES, BUT NOT NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INPLAMMATORY REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYCCARDIUM. MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE REPERFUSED MYOCARDIUM. SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
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9653; G1144186;
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larity 91.7%;
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R->L: LOSS OF ACTIVITY.
D->L: 90% REDUCTION IN AN
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-1- SUBUNIT: MONOMEN-
-1- SIMIT:
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01-NOV-1995 (REL. 32, 1
15-JUL-1998 (REL. 36, 1
MONOCYTE CHEMOTACTIC PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P42831;
01-NOV-1995 (REL.
01-NOV-1995 (REL.
15-JUL-1998 (REL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          009141;
01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
                                                                                                                   C-C) (CHEMOKINE CC).
EMBL; S67954; E118856; -.
EMBL; S67956; G544997; -.
                                                                                                                                                                                                                                                                                                      MEDLINE; 94114084.

WEMPE F., HANES J., SCHEIT K.H.;

DNA CELL BIOL. 13:1-8(1994).

-i- FUNCTION: CHEMOTACTIC FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EUTHERIA; ARTIODACTYLA.
[1]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHEMOATTRACTANT PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C-C) (CHEMOKINE CC).
EMBL; Z48479; G683717; -
EMBL; X79416; G872313; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NEUTROPHILS.
-!- SUBUNIT: MONOMER OR
-!- SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBMITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BIOCHEM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. MEDLINE; 94183284. HOSANG K., KNOKE I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SCYA2
                                   SIGNAL
                                                                CYTOKINE;
                                                                                         PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SCYA8 OR MCP2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MCP2_BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZACH O.R.F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              73 EICAEPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 EICADPKQKWIQ
                                                                                                                                                                                                                SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY). SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                   PS00472; SMALL_CYTOKINES_CC; 1. CHEMOTAXIS; SIGNAL; HEPARIN-BINDING;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PS00472; SMALL_CYTOKINES_CC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BIOPHYS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHEMOTAXIS;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10976
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75
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                , CREATED)
, LAST SEQUENCE UPDATE)
, LAST ANNOTATION UPDATE)
PROTEIN 1 PRECURSOR (MCP-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2).
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TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     M.
                                                                                                                                                                                                                                                                                                          FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 94;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     : INFLAMMATORY RESPONSE.
BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 1.
PYRROLIDONE CARBOXYLIC ACID (BY
BY SIMILARITY MONOCYTE CHEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BY SIMILARITY.
BY SIMILARITY.
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   CHEMOTACTIC PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0,:
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MONOCYTES,
                                                            INFLAMMATORY RESPONSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SCHEIT K.H.;
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Best Local
                                                                                                                                                                                                                                                                                                                      MEDLINE: 97341179.

MEDLINE: 97341179.

MEDLINE: 97341179.

BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOURBAGY N., APPELBAUM E., REAPE T.J., BRAWNER M., MAKWANA J., FOLEY J.J., SCHMIDT D.B., IMBURGIA C., MACNULTY D., MATTHEWS J., O'DONNELL K., O'SHANNESSY D., SCOTT M., GROOT P.H.E., MACPHEE C.;

J. BIOL. CHEM. 272:16404-16413(1997).
                                                                                                                                                          DANTE M., GIBSON A.;
SUBMITTED (ANG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
-:- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
-:- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INTELAMMATION.
MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
WALL DURING THE DISEASE PROCESS OF ARTHEROSCIEROSIS. MAY PLAY A
ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
EXOGENOUS PATHOGENS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE; 97113354. COMBADIERE C., GARCIA-ZEPEDA E.A., COMBADIERE C., LAVIGNE F., HAMID Q., MURPHY P.M., T. IMMUNOL. 157:5613-5626(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-JUL-1998 (REL. 36, CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        UGUCCIONI M., LOETSCHER P., FORSS LI Y., KREIDER B., GAROTTA G., TH J. EXP. MED. 183:2379-2384(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHEMOATTRACTANT PROTEIN 4) (CK-BETA10) (NCC-1). SCYA13 OR MCP4 OR NCC1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MCP4
                                 ++
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE; 96235049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EUKARYOTA; METAZOA; EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q99616;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE-FETAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-FETAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HOMO SAPIENS (HUMAN)
                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      73 DVCADPKQKWVQ
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1 EICADPKQKWIQ 12
                                       MASS SPECTROMETRY: MW-9314; MW_ERR-30; METHOD-MALDI; MASS SPECTROMETRY: MW-8760; MW_ERR-30; METHOD-MALDI; MASS SPECTROMETRY: MW-8575; MW_ERR-30; METHOD-MALDI; INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.

TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.

THIS PROTEIN CAN BIND HEPARIN.
 PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR (FNPQGLA)MCP-4 ARE PRODUCED BY DIFFERENTIAL (LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9;
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75
10900
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24
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G., THELEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 92; DB 1; I
Pred. No. 6.73e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PYRROLIDONE CARBOXYLIC ACID SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ROTHENBERG M
LUSTER A.D.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEWALD B.,
BAGGIOLINI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        M.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 99;
ISOFORMS (LA)MCP-4 AND SIGNAL CLEAVAGE. MCP-4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SARAFI M.N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Η.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (BY
                                                                       INTESTINE,
                                                                                                                                  RANGE=17-98
RANGE=22-98
                                                                                                                    RANGE-24-98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LIMA S.H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
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RESULTATION OF THE RESULT.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
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Best Local :
     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                       C-C) (CHEMOKINE CC).
EMBL; L132659; G624394; -.
EMBL; M44602; G163395; -.
PIR; A39296; A39296.
PIR; JC2336; JC2336.
                                                                                   DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOD_RES
DISULFID
DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEMINAL FLUID PROTEIN).
BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P28291;
01-DEC-1992 (REL. 24, CREATED)
01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE-SEMINAL PLASMA;
MEDLINE; 92096117.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WEMPE F., KUHLMANN J.K., SCHEIT K.H.;
BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MCPA_BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MIM; 601391;
                                                                                                                                                                                                                            CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NEUTROPHILS.
-!- SIMILARITY: BELONGS TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A. MEDLINE; 94338337.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
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                                                                                                                                                                                           MOD_RES
                                                                                                                                                                                                                                                   SIGNAL
                                                                                                                                                                                                                                                                            CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                - 1 - FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BIOCHEM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WEMPE F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE; 92181448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-SEMINAL PLASMA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -i- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                      ISSP:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 72 EICADPKEKWVQ 83
|||||||:||:|
1 EICADPKQKWIQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       046767; G1732123; -.
AC002482; G2340091;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   U46767; G1732123;
                                                                                                                                                                                                                                                                                                                                    P13500;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10;
                                                                                                                                                                                                                                                                                                        3500; 1MCA.
PS00472; S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BIOPHYS. RES.
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                                                                                                                                                                                                                                                                         CHEMOTAXIS;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EINSPANIER R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HENSCHEN A., SCHEIT K.
310L. 10:671-679(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24
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                                                                                   AA;
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                                                                                                                                                                                                                                                                                                        SMALL_CYTOKINES_CC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SMALL_CYTOKINES.
                                                                                   59
75
11114
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     92.8%;
83.3%;
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294
294
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                                                                                                                                                                                                                                                                            SIGNAL
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COMMUN. 183:232-237(1992).
                                                                                      M.
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     Score
Pred.
                                                                                   BY SIMILARITY.
BY SIMILARITY.
C8F5821D CRC32
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Pred. No. 1.21e-08
                                                                                                                                                               BY SIMILARITY.

MONOCYTE CHEMOTACTIC PI
PYRROLIDONE CARBOXYLIC
SIMILARITY).
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PYRROLIDONE CARBOXYLIC
BY SIMILARITY.
BY SIMILARITY.
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DF52F6EC CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INES_CC; 1.
GLYCOPROTEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INTERCRINE BETA FAMILY (SMALL CYTOKINE
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     90;
DB 1; I
2.16e-08;
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                                                                                      CRC32;
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                                                                                                                                                                                                                         PROTEIN
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                                                                                                                                                                                             ACID
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Best Local S
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DISULFID
CARBOHYD
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P28292;
01-DEC-1992
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CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                EOTA_RAT STANDARD; PRT; 97 AA.
197545; 008780; CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROPERTY OF THE PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHAIN
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                                                                                                                                                                                                                                  SEQUENCE FROM N.A. WILLIAMS C.M., NEWTON FLANAGAN B.F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE CC). (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE; 91225489.
YOSHIMURA T., YUHKI N.;
J. IMMUNOL. 146:3483-3488(1991).
-i- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
STRAIN-NEW ZEALAND WHITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SCYA2
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01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
                                                                                                                                                                                                                                                                                                                                                                                                                            EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORYCTOLAGUS CUNICULUS (RABBIT).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
       SUBMITTED
                                                                                   TISSUE-LUNG;
                                                                                                                      SEQUENCE FROM
                                                                                                                                                                                                  SUBMITTED
                                                                                                                                                                                                                                                                                                                                                                                        EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        74 ICADPKQKWVQ
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10; Conser
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       (MAY-1997)
                                                                                                                                                                                                  (DEC-1996)
                                                                                                                                                                                                                                                                                                                                                                                        METAZOA; CHÓRDATA; VERTEBRATA; TETRAPODA; MAMMALIA; RODENTIA.
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XIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
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EMBL/GENBANK/DDBJ DATA BANKS
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                                                                                                                                                                                                                                                                 WILSON S.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 89; [
Pred. No. 3.
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MONOCYTE CHEMOTACTIC PROTEIN 1.
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                                                                                                                                                                                                                                                                     COLEMAN J.C.
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CONFLICT
SEQUENCE
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SIGNAL 1 23
CHAIN 24 97
DISULFID 32 57
DISULFID 33 73
                                         C-C) (CHEMOKINE CC).

EMBL; U26426; G995911; -.

EMBL; U40672; G1113937; -.

MGD; MCI:103576; SCYA11.

PROSITE; PS00472; SMALL_CYTOKINES_CC;

EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-FEB-1996 (REL. 33, CREATED)
01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
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                                                                                                                                                                                                                                                                                                                                                                                                                                             GUTIERREZ-RAMOS J.-C.;
IMMUNITY 4:1-14(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-C57BL/6J; TMEDLINE; 96158746.
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ROTHENBERG M.E., I
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EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SCYALL.
MUS MUSCULUS (MOUSE).
MUS MUSCULUS (MOUSE).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GONZALO J.-A., JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A.J., JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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EOSINOPHIL;
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                        NFLAMMATORY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                71 EICADPKKKWVQ 82
                                                                                                                                                           CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
INDUCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
PTM: O-GLYCOSYLATED (PROBABLE).
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYT-C-C) (CHEMOKINE CC).
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                                                                                                                                                                                                                                                                                                                        FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
SUBCELLULAR LOCATION: EXTRACELLULAR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMIL SUBCELLULAR LOCATION: EXTRACELLULAR. SUBCELLULAR LOCATION: EXTRACELLULAR. PTM: O-GLYCOSYLATED (PROBABLE).
                                                                                                                                                                                                                                                         TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS. EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NATL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97
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  RESPONSE.
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44324
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LUSTER A.D.,
. SCI. U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE-LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10851 MW;
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Pred. No. 6.85e-08
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  POTENTIAL
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92:8960-8964(1995).
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                                                GLYCOPROTEIN;
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                                                                                                                                                                                     (SMALL CYTOKINE
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TIDE RESULT

ACC PROPERTY OF THE COMMANDER FOR T
X MEDLINE; 97263733.

X MEDLINE; 97263733.

A MEUNIER S., BERNASSAU J.-M., GUILLEMOT J.-C., FERRARA P., DAI BIOCHEMISTRY 36:4412-4422(1997).

L BIOCHEMISTRY 36:4412-4422(1997).

C -: FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI CALL TO A STANDARD THE STANDARD BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI CALL TO A STANDARD BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI CALL THE SUBUNIT; MONOMER.

C -: SUBUNIT; MONOMER.
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Rest Local S
Matches 1
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DISULFID
DISULFID
SEQUENCE
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P80098;
01-DEC-1992 (REL. 24, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.

MEDILINE; 93305913.

MINTY A., CHALON P., GUILLEMOT J.C.

MAGAZIN M., MILOUX B., MINTY C., RAI

SHIRE D., FERRARA P., CAPUT D.;

EUR. CYTOKINE NETW. 4:99-110(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
MEDLINE; 94375065.
OPDENAKKER G., FITEN P., NYS
LAUREYS G., VAN DAMME J.;
GENOMICS 21:403-408(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A., MEDLINE; 93213290.
OPDENAKKER G., FROYI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CHEMOATTRACTANT PROTEIN 3) (NC28). SCYA7 OR MCP3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VAN
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MEDLINE; 92308855.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HOMO SAPIENS (HUMAN)
EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRUCTURE BY NMR. MEDLINE; 97263733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF 30-99.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                71 EICADPKKKWVQ
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10; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        J., PROOST P., LENAI
ED. 176:59-65(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RAJARATHNAM K., CL
395:277-282(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AND
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83.3%;
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73
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BY SIMILARITY.
BY SIMILARITY.
; F85A96BC CRC32;
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Pred. No. 6.85e-08;
1; Mismatches 1
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191:535-542(1993)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ι.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SYKES
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                                                                                                                                                                                                   FAMILY (SMALL CYTOKINE
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Best Local S
Matches 1
SEÓUENCE FROM N.A.
TISSUE--LACENTA;
MEDLINE, 97312708.
GARCIA-ZEPEDA E.A., ROTHENBERG M
MORTON C.C., LUSTER A.D.;
GENOMICS 41:471-476(1997).
[6]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EOTA_HUMAN STANDARD; PRT; 97 AA. P51671; P50877; Q92490; Q92491; 01-0CT-1996 (REL. 34, CREATED) 01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE) 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE) EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTECTION OF THE 
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CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                          KITAURA M., NAKAJIMA T., IMAI T., H
TIFFANY H.L., MURPHY P.M., YOSHIE O
J. BIOL. CHEM. 271:7725-7730(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                           CHRISTOPHERS E.,
                                                                                                                                                                                                                                                                                         MEDLINE; 96374440.
                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.,
TISSUE-FORESKIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE-SMALL INTESTINE; MEDLINE; 96205964.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SMITH H., SH
MACKAY C.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PONATH P.D.,
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; S32222; S32222.
; A54678; A54678.
; INCV; 15-OCT-97.
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3; 96189937.
P.D., QIN S., RINGLER D.J., C
THT X., GONZALO J.A., NEW!
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                                                                                                                                                                                                                BIOPHYS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIMATES
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larity 83.3%;
Conservative
                                                                                                                                                                                                                                           SCHROEDER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97:604-612(1996).
                                                                                                                                                                                                                RES.
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                                                                                                                                                                                                                                        J.M.;
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Pred.
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T -> K (IN REF. 4
MISSING (IN REF.
7502E19C CRC32;
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BY SIMILARITY.
BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERTEBRATA; TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  M.E.,
                                                                                 м.
Е.,
                                                                                                                                                                                                                225:1045-1051(1996)
                                                                                                                                                                                                                                                                                                                                            60-65
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              e 88; DB 1; Le l. No. 6.85e-08; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                        HARADA
O.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLARK-LEWIS I., WANG J., WMAN W., GUTIERREZ-RAMOS
                                                                                 WEREMOWICZ
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; GLYCOPROTEIN;
                                                                                                                                                                                                                                                                NOSO N.,
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                                                                                 s,
                                                                                                                                                                                                                                                                                                                                            AND VARIANTS.
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                                                                                 SARAFI M.N.,
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Best Local Similarity
Matches 9; Conser
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EMBL: U46573; G1280141; -.

EMBL: U34780; G1185440; -.

EMBL: D49372; G1552241; -.

EMBL: 262921; E221070; -.

EMBL: 275668; E251275; -.

EMBL: 275668; E251275; -.

EMBL: 275668; E251275; -.

EMBL: 275669; E251275; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFLAMMATORY
SIGNAL
CHAIN
DISULFID
DISULFID
DISULFID
VARIANT
VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
TISSUE~LUNG;
MEDLINE; 97445071.
HEIN H., SCHLUETER
                        EMBL; Z484
PROSITE; F
CYTOKINE;
                                                                                                                                                                                                                                           MCP2_PIG STANDARD; PRT; 99 AA. P49873; 01-OCT-1996 (REL. 34, CREATED) 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE) 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE) MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-CHEMOATTRACTANT PROTEIN 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VARIANT
VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).
i- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS,
DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS,
FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
                                                                                                                         BIOCHEM. BIOPHYS. RES. COMMUN.
                                                                                                                                      HOSANG K.K., KNOKE I.I., SCHEIT K.K.;
                                                                                                                                                            SEQUENCE FROM N.A. MEDLINE; 95091716.
                                                                                                                                                                                                            SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                     SCYA8 OR MCP2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MIM; 601156;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BARTELS J.;
              SIGNAL
                                                           CAN BIND HEPARIN.

-:- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).

-:- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                               -!- FUNCTION:
                                                                                                                                                                                                  EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                       1 EICADPKQKWIQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUBCELLULAR LOCATION: EXTRACELLULAR.
PTM: O-GLYCOSYLATED (PROBABLE).
INDUCTION: BY TNF-ALPHA, IL-1-ALPHA AND INTERFERON GAMMA.
                       Z48480; G683719; -. TE; PS00472; SMALL_CYTOK: INE; CHEMOTAXIS; SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PS00472; SMALL_CYTOKINES_CC;
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7 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                            CHEMOTACTIC
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                                     SMALL_CYTOKINES_CC;
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                                                                                                                                               KLAUDINY J.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MW;
                                                                                                            FACTOR
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EXTRACTAY:

BY SIMILARITY:

BY SIMILARITY:

BY SIMILARITY:

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Pred. No. 1.22e-07
 BY SIMILA MONOCYTE
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           HEPARIN-BINDING;
BY SIMILARITY.
                                                                                                                                                                                                             VERTEBRATA;
                                                                                                         205:148-153(1994).
OR THAT ATTRACTS MONOCYTES. THIS PROTEIN
                                                                                                                                                                                                                                                           PRECURSOR (MCP-2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INTERCRINE BETA FAMILY (SMALL CYTOKINE
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                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
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CHEMOTACTIC PROTEIN
                                                                                                                                                WEMPE F.F.,
                                                                                                                                                                                                             TETRAPODA; MAMMALIA;
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                        INFLAMMATORY RESPONSE
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                                                                                                                                                WUTTKE W.W
                                                                                                                                                                                                                                                                                                                                                                                                                                                 97;
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                                                                                                                                                MCP5_MOUSE STAN
Q62401;
01-NOV-1997 (REL. 3
01-NOV-1997 (REL. 3
15-JUL-1998 (REL. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
DISULFID
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SCYA2 OR MCP1.
SCYA2 OR MCP1.
CAVIA PORCELLUS (GUINEA PIG).
CAVIA PORCELLUS (GUINEA PIG).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID DISULFID
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q08782;
01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDAT
15-JUL-1998 (REL. 36, LAST ANNOTATION UPD
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR
                                MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; C
EUTHERIA; RODENTIA.
                                                                                                                             01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NEUTROPHILS.
-!- SUBUNIT: MONOMER OR
-!- SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN-Z; TISSUE-S
MEDLINE; 93267104.
YOSHIMURA T.;
                                                                                                               CHEMOKINE!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
STRAIN-Z; TISSUE-SPLEEN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHEMOATTRACTANT PROTEIN-1).
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 SEQUENCE FROM N.A.
                                                                                          SCYA12 OR MCP5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             J. IMMUNOL. 150:5025-5032(1993).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOD_RES
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1 EICADPKQKWIQ 12
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9; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RODENTIA.
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7 AA;
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                                                                                                                                                                                                                         STANDARD;
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                                                       CHORDATA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 MΨ;
                                                                                                                                                                                                                                                                                                                                                                    Score 86;
Pred. No. 2
2; Mismat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                L; INFLAMMATORY RESPONSE; OBY SIMILARITY.

BY SIMILARITY.

MONOCYTE CHEMOTACTIC PROJ
PYRROLIDONE CARBOXYLIC AC
PYRROLIDARITY.

BY SIMILARITY.

BY SIMILARITY.
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Pred. No. 2.16e-07
2; Mismatches
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BY SIMILARITY.
BY SIMILARITY.
BY 630BCF CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL.
                                                     VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                         PRT;
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                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                         No. 2.16e-07
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                                                                                                                                                                                                                                                                                                                                                                                                           DB 1;
                                                                                                                             (MCP-5)
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                                                                                                                               (MCP-1 RELATED
                                                                                                                                                                                                                                                                                                                                                                        Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (SMALL CYTOKINE
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RESULT
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C -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES, CAND LYMPHCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC CHEMOKINE THAT SIGNALS TRESPONSE TO PATHOGENS AND MAY PLAY A PIVOTAL ROLE DURING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION.

C -!- SUBUNIT: HOMODIMER (BY SINILARITY) EXPRESSED IN THE LYMPH NODES AND THYMUS. ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES, BREAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.

C -!- INDUCTION: BY ITN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).

C -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE CC.) (CHEMOKINE CC).

CREMBL; U66670; G188158; --

REMBL; U66670; G188158; --

REMBL; U66670; G188158; --

REPOSITE; PS00472; SMALL CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
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Best Local
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CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-JUN-1994 (REL. 29, CREATED)
01-OCT-1996 (REL. 34, LAST SANN
15-JUL-1998 (REL. 36, LAST ANN
EOTAXIN PRECURSOR (EOSINOPHIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EOTA_CAVPO P80325;
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MEDLINE; 97149438.
SARAFI M.N., GARCIA-ZEPEDA E.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JIA G.-Q., GONZALO J.A., LLOYD C., KREMER WERSHIL B.K., GUTIERREZ-RAMOS J.C.; J. EXP. MED. 184:1939-1951(1996).
JOSE P.J., GRIFFITHS-JOHNSON D.A., COLLINS MOGBEL R., TOTTY N.F., TRUONG O., HSUAN J. EXP. MED. 179:881-887(1994).
-i- FUNCTION: IN RESPONSE TO THE PRESENCE
                                                                                   STRAIN-HARTLEY; TI
MEDLINE; 94157409.
                                                                                                                                                                                              SEQUENCE FROM N.A.
MEDLINE; 95091818.
JOSE P.J., ADCOCK I.M., GRI
WELLS T.C., WILLIAMS T.J.,
                                                                                                                                                                                                                                                                                                           MEDLINE; 95173589.

ROTHENBERG M.E., LUSTER A.D., LILLY J. EXP. MED. 181:1211-1216(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAVIA PORCELLUS (GUINEA EUKARYOTA; METAZOA; CHOI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LUSTER A.D.;
J. EXP. MED. 185:99-109(1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE; 9
                                                                                                                                                                            BIOCHEM. BIOPHYS. RES.
                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                            EUTHERIA;
                                                                                                                                   SEQUENCE OF 24-96
                                                                                                                                                                                                                                                                                         2
                                                                                                                                                                                                                                                                                                                                                                               ISSUE-LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
les 9; Conse
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                                                                                                            TISSUE-LUNG;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         34, LAST SEQUENCE UPDATE)
36, LAST ANNOTATION UPDATE)
(EOSINOPHIL CHEMOTACTIC PRO
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58
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81.8%;
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                                                                                                                                                                       GRIFFITHS-JOHNSON D.A.,
J., POWER C.A.;
COMMUN. 205:788-794(1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MW;
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Pred.
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MONOCYTE CHEMOTACTIC PROTEIN 5.

BY SIMILARITY.

BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       No.;
                                           COLLINS P.D., WALSH
                                                                                                                                                                                                                                                                                                                               G
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. 6.72e-07;
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  ALLERGENS,
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                                                                                                                                                                                                                       BERKMAN
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                                                                                                                                                                                                                                                                                                                               J.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MARTINEZ A.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (SMALL CYTOKINE
                                           D.T.,
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  PROTEIN
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Best Local S
Matches
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SIGNAL 1 23
CHAIN 24 96
DISULFID 31 56
DISULFID 32 72
CARBOHYD 93 93
CONFLICT 88 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
DISULFID
CARBOHYD
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                  LT 16
IL8_CANFA
P41324;
                                                                   -!- SIMILARITY: BELONGS TO THE C-C) (CHEMOKINE CC).
EMBL; U18941; G687656; ...
EMBL; X77603; G602552; -...
HSSP; P13500; IMCA.
                                                                                                                                                                                                                                                                                                                                       01-FEB-1995 (REL.
01-FEB-1995 (REL.
01-NOV-1995 (REL.
        C-X-C) (CHEMOKINE CXC).
EMBL; D28772; G517100; -.
EMBL; D14285; G475152; -.
EMBL; U10308; G607814; -.
                                            RESPONSE TO AN INFLAMMATORY
-!- SUBUNIT: HOMODIMER.
-!- SIMILARITY: BELONGS TO THE
                                                                                                                                                                         MATSUMOTO Y., MOHAMED A.,
GOITSUKA R., TSUJIMOTO H.,
ISHIKAWA J., HOTTA K., SUZ
CYTOKINE 6:455-461(1994).
                                                                                                                                                                                                                                                                                                    CANIS FAMILIARIS (DOG).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                             MEDLINE; 95114148.
KUKIELKA G.L., SMI
                                                                                                                                                                                                            SEQUENCE FROM N.A. TISSUE-LYMPH NODE; MEDLINE; 95127913.
                                                                                                                                                                                                                                                ISHIKAWA J., SUZUKI S.,
GENE 131:305-306(1993).
                                                                                                                                                                                                                                                                                             EUTHERIA; CARNIVORA.
                                                                                                                                                                                                                                                                    MEDLINE;
                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                 INTERLEUKIN-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE;
                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                 71 ICADPKKKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                N
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
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9; Conser
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CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                PRECURSOR (IL-8).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AA;
                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                               TISSUE-JUGULAR VEIN
                                                                                                                                                                                                                                                                                                                                                                                                               12
                                                                                                                                                                                                                                                                                                                                                                                                                                81
                                                                                                                                                                                                                                                                                                                                    31, CREATED)
31, LAST SEQUENCE UPDATE)
32, LAST ANNOTATION UPDATE)
SMALL_CYTOKINES_CXC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10753
                                                                                                                                                                                                                                                                                                                                                                                                                                                           84.5%;
                                                                                                                                                                                 A., ONODERA T., KA
H., HASEGAWA A.,
SUZUKI K., HIROTA
                                                                                                                                                                                                                                                        HOTTA
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Pred.
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BY SIMILARITY.
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                                             INTERCRINE ALPHA
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                                                               STIMULUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                            NO ;
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GLYCOPROTEIN;
                                                                                                                                                                                   HIROTA
                                                                                                                                                                                                                                                        HIROTA Y.,
                                                                                                                                                                                                                                                                                                                                                                            101
                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 1; L
2.07e-06;
                                                                                                                                                                                                  KATO H.,
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                                                                                                                                                                                   FURUSAWA
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                                                                                                                                                                                                                                                         MIZUNO
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                                             FAMILY (SMALL CYTOKINE
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P36925;
01-JUN-1994 (REL. 2
01-JUN-1994 (REL. 2
01-NOV-1995 (REL. 2
INTERLEUKIN-8 PRECU
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SIGNAL
              IL8_PIG STANDARD; PRT; 103 AA P26894; P22951; CREATED) 01-AUG-1991 (REL. 19, CREATED) 01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE) 01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE) INTERLEUKIN-8 PRECURSOR (IL-8) (ALYEOLAR MAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE; F
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MEDITINE; 95137691.

SEOW H.F., YOSHIMURA T., WOOD P.R., COLDITZ I.G.;

IMMUNOL. CELL BIOL. 72:398-405(1994).

-i- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,

-i- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,

BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN

NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN

RESPONSE TO AN INFLAMMATORY STIMULUS.

-i- SUBUNIT: HOMODIMER.

-i- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; X78306; G463254; -. EMBL; S74436; G786591; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENE
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                                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; $74436; $786591
PIR; $42496; $42496.
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GENE 150:367-369(1994).
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METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  101 AA;
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36
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XIS; INFLAMMATORY RESPONSE;
22 BY SIMILARITY.
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29, LAST SEQUENCE UPDATE)
32, LAST ANNOTATION UPDATE)
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BY SIMILARITY.
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Pred.
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BY SIMILARITY.
BY SIMILARITY.
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3; 1
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BY SIMILARITY.
BY SIMILARITY.
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                  (ALVEOLAR MACROPHAGE
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                                                                                                                                                                                                                                                                                           82; DB 1; I
No. 2.07e-06;
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                                      UPDATE)
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                  CHEMOTACTIC
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Matches
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-!- SUBUNIT: HOMODIMER.
-!- TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.
-!- INDUCTION: BY LIPOPOLYSACCHARIDE.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA C-X-C) (CHEMOKINE CXC).
EMBL; M6923; G164521; -.
EMBL; M69367; G1235612; -.
MIIA_RAT STANDARD; PRT; 92 AA P50229; 01-OCT-1996 (REL. 34, CREATED) 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE) 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDAT: MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRESCYA3 OR MIPIA.
                                                                                                                                                                               DISULFID
DISULFID
CONFLICT
CONFLICT
SEQUENCE
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MEDLINE;
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                                                                                                                                                                                                                                                                                                                                                                                          GOODMAN R.B., FORSTROM J.W., OSBORN S.G., CHI E.
J. BIOL. CHEM. 266:8455-8463 (1991).
-!- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. I
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM S
                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=YORKSHIRE;
MEDLINE; 91217086
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MEDLINE; 94103307.
LIN G., PEARSON A.E., S
WEISS D.J., MURTAUGH M.
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SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHC
                                                                                                                                                                                                                                  CHAIN
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                                                                                                                                                                                                                                                      CYTOKINE;
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PIR; A39819;
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                                                                                                                                                                                                                                                              PROSITE;
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                                                                                                                                                                                                                                                                       A44253; A44253.
A39819; A39819.
P10145; 3IL8.
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                                                                                                                    EVCLDPKEKWVQ
                                                                                                                                         Similarity
8; Conser
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33
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103
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                                                                                                                                                                                                                                                     INFLAMMATORY RESPONSE;
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BY SIMILARITY.
BY SIMILARITY.
RC -> CR (IN REF
                                                                                                                                                                               RC -> CR (IN REF. 2
K -> KK (IN REF. 2
A012D59D CRC32;
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                                                                                                                                         Mismatches
                                                                                                                                                   No.;
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2.07e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZHOU Y.,
        UPDATE)
HA PRECURSOR (MIP-1-ALPHA).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DATA
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                                                                                                                                                                                                                                                      SIGNAL.
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2).
                                                                                                                                         1;
                                                                                                                                                           Length 103;
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                                                                                                                                                                                                                                                                                                                                                                                             T ATTRACTS NEUTROPHILS,
IT IS ALSO INVOLVED IN
SEVERAL CELL TYPES IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BANKS
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                                                                                                                                         Indels
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RESULT RESULT OF THE RESULT OF
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Best Local
               MEDLINE: 95034774.

PROOST P., WUYTS A., LENAERTS J.-P., VAN DAMME J.;

BIOCHEMISTRY 33:13406-13412(1994).

-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN CAN BIND HEPARIN.
                                                                                                                                                                                                                                      P80343;
01-FEB-1995 (REL. 31, CREATED)
01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDAT
MONOCYTE CHEMOTACTIC PROTEIN 1B (MCP-1B) (F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CONFLICT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ω.
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                                                                                                                                                                                                                                BOS
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SHANLEY T.P.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RATTUS NORVEGICUS (1 EUKARYOTA; METAZOA;
                                                                                                                                   TISSUE-KIDNEY;
                                                                                                                                                       SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN-WISTAR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 24-57.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-LONG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EUTHERIA;
                                                                                                                                                                                        EUTHERIA;
                                                                                                                                                                                                              EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                              MCPB_BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                        71 QICADPKETWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                       \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IMMUNOL.
                                                                                                                                                                                      TAURUS (BOVINE).
ARYOTA; METAZOA; CHORDATA;
HERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INDUCTION: BY LIPOPOLYSACCHARIDE (LPS). SIMILARITY: BELONGS TO THE INTERCRINE BETA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BINDS HEPARIN.
                                                                                                                                                                                                                                                                                                                                                                                                                   EICADPKQKWIQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
8; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (CHEMOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 96183056.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          154:4793-4802(1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EVANS; TISSUE-LUNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            34
35
57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SCHMAL H.,
                                                                                                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SMALL_CYTOKINES_CC; (IS; INFLAMMATORY RE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (RAT)
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73
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ¥.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score
Pred.
3; M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BY SIMILARITY.
BY SIMILARITY.
A -> T (IN REF.
C -> W (IN REF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MACROPHAGE INFLAMMATORY
                                                                                                                                                                                                          VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        F48CF89F CRC32;
                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       H.P.,
                                                                                                                                                                                                                                               (MCP-1B) (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          T (IN REF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESPONSE; SIGNAL; HEPARIN-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ω
                                                                                                                                                                                                                                                                 UPDATE)
                                                                                                                                                                                                                                                                                                                                            74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 1; I
3.63e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JONES
                                                                                                                                                                                                                                                                                                                                            A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         M.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2).
2 AND
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WARD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROTEIN 1-ALPHA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EOSINOPHILS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INJURY AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MCP2_HUMAN STANDARD; PRT; 99 AA.
P80075; P78388;
01-DEC-1992 (REL. 24, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CREMOTACTIC PROTEIN 2 PRECURSOR (MCP-2)
CHEMOATTRACTANT PROTEIN 2) (HC14).
SCYA8 OR SCYA10 OR MCP2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID SEQUENCE
                                                                                                                                                                                                                                                                                                                                                               SEQUENCE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -i- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).

PROSITE: PRO10472: SMALL_CYTOKINES_CC: 1.

CYTOKINE: CHEMOTAXIS; HEPARIN-BINDING.
-!- INDUCTION: BY INTERFERON
-!- SIMILARITY: BELONGS TO TH
C-C) (CHEMOKINE CC).
EMBL; X99886; EZ79930; ALT_IN
EMBL; Y10802; E294088; -.
                                                                                                                                                                                                                                                                                                                                                                                                                  VAN COILLIE E., FROYEN E
VAN AELST I., VAN DAMME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VAN COILLIE E., FITEN P., NO. VAN DAMME J., OPDENAKKER G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                      KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
FEBS LETT. 395:277-282(1996).
                                                                                                                                                                                                                SUBUNIT.
MEDLINE; 97053697
                                                                                                                                                                                                                                                       MEDLINE; 92308855.
VAN DAMME J., PROOST P., LEN
J. EXP. MED. 176:59-65(1992)
                                                                                                                                                                                                                                                                                              TISSUE-OSTEOSARCOMA;
                                                                                                                                                                                                                                                                                                                                                  CHANG H.C., HSU F., FREEMAN G.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A., TISSUE-BONE MARROW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENOMICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NON_TER
                                                                                                                                                                                                                                                                                                              SEQUENCE OF 26-99
                                                                                                                                                                                                                                                                                                                                      INT. IMMUNOL.
                                                                                                                                                                                                                                                                                                                                                                                                       BIOCHEM. BIOPHYS. RES. COMMUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE; 97224420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE; 97237052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A., AND VARIANT GLN-69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           48 EICAEPKXXWVQ 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 EICADPKQKWIQ 12
                                                                            FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYT BASOPHILS AND EOSINOPHILS. MAY PLAY A ROLE IN NEOPLASIA AND INFLAMMATORY HOST RESPONSES. THIS PROTEIN CAN BIND HEPARIN. SUBUNIT: MONOMER OR HOMODIMER; IN EQUILLBRIUM.

SUBUNIT: MONOMER OR HOMODIMER; IN EQUILLBRIUM.

TISSUE SPECIFICITY: HIGHEST EXPRESSION FOUND IN THE SMALL INTESTINE AND PERIPHERAL BLOOD CELLS. INTERMEDIATE LEVELS SEEN THE HEART, PLACENTA, LUNG, SKELETAL MUSCLE, THYMUS, COLON, OVAR STINAL CORD AND PANCREAS. LOW LEVELS SEEN IN THE BRAIN, LIVER,
                                                                   SPLEEN AND PROSTATE
                                                                                                                                                                                                                                                                                                                                                             OF 23-99 F
91207938.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 40:323-331(1997).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          74 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                      1:388-399(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                   FROYEN F., NOMIYAMA H.,
AN DAMME J., OPDENAKKER
                                                                                                                                                                                                                                                                                                                                                                           FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8360 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  82.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AND VARIANT
               ALT_INIT
                                                                                                                                                                                                                                                                     LENAERTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NOMIYAMA H.,
                                         THE INTERCRINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BY SIMILARITY.
BY SIMILARITY.
66172F08 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 80; DB 1; I
Pred. No. 6.33e-06;
                                                       GAMMA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ν,
                                                                                                                                                                                                                                                                                                                                                                                                       231:726-730(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GLN-69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                    J.-P.,
                                                                                                                                                                                                                                                                                                                                                  GRIFFIN J.D., REINHERZ E.L.;
                                                                                                                                                                                                                                                                                                                                                                                                                               н.,
                                                     MITOGENS AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SAKAKI
                                                                                                                                                                                                                                                                                                                                                                                                                                MIURA R.,
                                                                                                                                                                                                                                                                     OPDENAKKER
                                         BETA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Y.,
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                                         FAMILY
                                                       INTERLEUKIN-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MIURA R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                 FITEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                     G.;
                                         (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                 .
P.
                                                                                                                                                                           LYMPHOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YOSHIE O.,
                                                                                              OVARY,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'HSSP; P13500; 1MCA.
MIM; 602283; -.
PROSITE; PS00472; SMALL
CYTOKINE; CHEMOTAXIS; $
                                                                                                                                                                                                                                                                TISSUE-AORTA, AND LUNG;

MEDLINE; 97376336.

HIESHIMA K., 18A1 T., BABA M., SHOUDAI K., ISHIZUKA K.,

HIESHIMA T., TSURUTA J., TAKEYA M., SAKAKI Y., TAKATSUKI K.

MIURA R., OPDENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA

J. IMMUNOL. 159:1140-1149(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MIP4_HUMAN
P55774;
01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND ACTIVATION-REGULATED CHEMOKINE) (CC CHEMOKINE PARC) (ALTERNATIVE CONTINUES) (CC CHEMOKINE 1) (AMAC-1).
                     CYTOKINE;
SIGNAL
CHAIN
                                                                                                                           WEDLINE: 97275308.

WELLS T.N.C., PEITSCH M.C.;

J. LEUROC. BIOL. 61:545-550(1997),

-I- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LY
MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN

INTO B CELL FOLLICLES IN LYMPH NODES.

-I- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS
LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES
                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MUELLER C.,
MUELLER C.,
MUELLER C.,
MUELLER C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
DISULFID
VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHAIN
MOD_RES
  DISULFID DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                              HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; PRIMATES.
                                                                                   THYMUS AND APPENDIX.

-i- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS)

-i- SIMILARITY: BELLONGS TO THE INTERCRINE

C-C) (CHEMOKINE CC)
                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A., AND TISSUE-AORTA, AND LUNG;
                                                                                                                                                                                                                                                                                                                                                                        PATENT
                                                                EMBL; AB000221; D1022520; -. EMBL; Y13710; E321838; -.
                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
LI H., RUBEN S.;
                                                                                                                                                                                                                   DISCUSSION OF SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POLYMORPHISM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73 EVCADPKERWVR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 EICADPKQKWIQ 12
                                                                                                                                                                                                                                                                                                                                                                        NUMBER US5504003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity 7; Conse
                                                   3710; E321838; -. PS00472; SMALL_C
                                          CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99
   30
31
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                          SMALL_CYTOKINES_CC;
KIS; INFLAMMATORY RE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SMALL_CYTOKINES_CC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  82.5%;
58.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11246 MW;
  20
89
70
                                                                                                                                                                                                                                                                                                                                                 AND PARTIAL SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 59
59
59
59
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                                                                                                                                                                                                                                       POLITZ O., HAKIY N., OI EMBL/GENBANK/DDBJ DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred.
5; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROBABLE.

MONOCYTE CHEMOTACTIC PRO
PYRROLIDONE CARBOXYLIC P
BY SIMILARITY.

BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 80;
MACROPHAGE INFLAMMATORY
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7 B
                                                                                                                                                                                                                                                                                                                                                                                                                           VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5DDD5C20 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HEPARIN-BINDING;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                          RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; DB 1; I
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                                                                                                                                                                                                                                                                                                                                                                                                                            TETRAPODA; MAMMALIA;
                                                                                             BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                      ORFANOS
TA BANKS.
                                          SIGNAL
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                                                                                                                             IN THE LUNG. I
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                     PROTEIN 4.
                                                                                                                                                                                                                                                 C.E.,
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                                                                                                                             A LOWER H NODES,
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Best Local
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Best Local
                                                                                                                                                                                                                                                   IL8_RABIT
P19874;
01-FEB-1991
01-DEC-1992
01-NOV-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IL8_BOVIN
P79255;
01-NOV-1997
01-NOV-1997
01-NOV-1997
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DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                          ORYCTOLAGUS CUNICULUS (RABBIT).
EUKARYOTA; METAZOA; CHORDATA; V
EUTHERIA; LAGOMORPHA.
                                                                                                                                                                                                             EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
EUTHERIA; ARTIODACTYLA.
                                MEDLINE; 91225489.
YOSHIMURA T., YUHKI N.;
J. IMMUNOL. 146:3483-3488(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
-!- SUBUNIT: HOMODIMER (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C.Y.-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01.NOV-1997 (REL. 35, CREATED)
01.NOV-1997 (REL. 35, LAST SEQU
01.NOV-1997 (REL. 35, LAST ANNO
INTERLEUKIN-8 PRECURSOR (IL-8).
                                                                                     SEQUENCE FROM N.A.
STRAIN-NEW ZEALAND WHITE;
                                                                                                                                                                                                   BTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MORSEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. MEDLINE; 96304552.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  68 QICADPNKKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                       75
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                                                                                                                                                                                                                                                                                                                                                                                                                    EVCLNPKEKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S82598;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              M.A., POPOWYCH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity 58.3% 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ) (CHENCE )
2598; G1693354; -.
PS00471; SWALL_CYTOKINES_CXC; 1.
PS00471; INFLAMMATORY RESPONSE;
PY SIMILARITY.
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36
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35, LAST SEQUENCE UPDATE)
35, LAST ANNOTATION UPDATE)
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101
61
77
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58.3%;
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                                                                                         TISSUE-SPLEEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ¥;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 79;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 79;
Pred. No.
3; Misma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BY SIMILARITY.
BY SIMILARITY.
v; 0E39C526 CRC3
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                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                           VERTEBRATA;
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1.10e-05;
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                                                                                                                                                             TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                   ATTRACTANT/ACTIVATION
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 101;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
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SEQUENCE OF 23-53

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-!- SUBUNIL.
-!- SIMILARITY:
-:- SIMILARITY:
-- DR PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
-- PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
-- PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
-- CYTOKINE; CHEMOTAXIS: INFLAMMATORY RESPONSE; SIG
-- SIGNAL
-- SIMILARITY:
-- SIMILARITY:
-- DISULTID 36 77 BY SIMILARITY:
-- DISULTID 36 77 BY SIMILARITY:
-- NA; 11402 MW; CB32CC30 CRC
-- NO. 1
-- NO. 1
AC DOT AC
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                               EMBL; J04467; G387169; -.
EMBL; M19681; G387168; -.
PIR; A30209; A30209.
PIR; A30861; A30861
PIR; S16226; S16226.
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MEDLINE; 91058518.

BEAUBIEN B.C., COLLINS P.D., JOSE P.J., TOTTY N.F., HSUAN J.,

WATERFIELD M.D., WILLIAMS T.J.;

BIOCHEM. J. 271:797-801(1990).

-i-FUNCTION: II-8 IS A. CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,

BIOCHEM. J. 271:797-801(1990).

-i-FUNCTION: II-8 IS A. CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,

BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN

NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN

RESPONSE TO AN INFLAMMATORY STIMULUS.

-i- SUBUNIT: HOMODIMER.

-i- SUBUNIT: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE

-1-SUBUNIT: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE)
                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF 26-42.

MEDILINE: 91293127.

VAN DAMME J., DECOCK B., BERTINI R., C
PUT W., OPDEWAKKER G., MANTOVANI A.;
EUR. J. BIOCHEM. 199:223-229(1991).

-!- FUNCTION: CHEMOTACTIC FACTOR THAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. MEDLINE; 88234501. ROLLINS B.J., MORR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MCP1_MOUSE STANDARD; PRT; 148 AA.

P10148;
01-MAR-1989 (REL. 10, CREATED)
01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (PLATELET-DERIVED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GROWTH FACTOR-INDUCIBLE PROTEIN JE). SCYA2 OR MCP1 OR JE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                              -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MUS MUSCULUS (MOUSE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KAWAHARA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              75
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                                                                                                                                                                                                                  SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM INDUCTION: BY PLATELET DERIVED GROWTH FACTOR. SIMILARITY: BELONGS TO THE INTERCRINE BETA FAM. C-C) (CHEMORINE CC).
                                                                                                                                                                                                                                                                                                                                                                                 NEUTROPHILS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25
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89093129.
R.S., DEUEL T.F.;
CHEM. 264:679-682(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              METAZOA;
RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACAD.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MORRISON E.D.,
CAD. SCI. U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INTERLEUKIN-8.
BY SIMILARITY.
BY SIMILARITY.
K -> I (IN REF. 2).
K -> CB32CC30 CRC32;
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Pred. No. 1.10e-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STILES C.D.;
. 85:3738-3742(1988).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CONINGS
                                                                                                                                                                                                                                                                                                                                                                                                                ATTRACTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                            BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIGNAL.
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                                                                                                                                                                                                                                                                                                                                                                                                            MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENAERTS J.-P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
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                                                                                                                                                                                                                                                                                                                                      SIMILARITY).
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Best Local Similarity
Matches 8; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SDF1_MOUSE
P40224;
01-FEB-1995
01-FEB-1995
01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISULFID
DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-FEB-1995 (REL. 31, CREATED)
01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH
STIMULATING FACTOR) (PBSF) (12-O-TETRADECANOYLPHORBOL 13-ACCETATE
REPRESSED PROTEIN 1) (TPAR1) (THYMIC LYMPHOMA CELL STIMULATING FACTOR)
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
PIR; P
                                                                                                                                                                  NOMURA M., NAKATA Y., UZAWA A., NOSE M., AKASHI M., SUZUKI G.; SUBMITTED (DEC-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
-I- EUNCTION: CHEMOATTRACTANT ACTIVE ON T-LYMPHOCYTES, MONOCYTES,
                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
MEDLINE; 95073497.
JIANG W., ZHOU P., KAHN S.M.,
WEINSTEIN I.B.;
                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. MEDLINE; 93342488. TASHIRO K., TADA H.,
                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
MEDLINE; 94181581.
NAGASAWA T., KIKUTANI
PROC. NATL. ACAD. SCI.
                                                                                                                                                                                                                                                                                                                                                                                                               MUS MUSCULUS (MOUSE) EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIGNAL
                                                                                          STRAIN-AKR/J
                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MGD; MGI:98259; SCYA2
PROSITE; PS00472; SMA)
                                                                                                                                                                                                                                 EXP. CELL RES.
                                                                                                                                                                                                                                                                                              SCIENCE 261:600-603(1993).
                                                                                                                                                                                                                                                                                                                                                                                                      EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                            (TLSF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             73
        C-X-C) (CHEMOKINE CXC).

L; D21072; G468457; -.

L; L12029; G393180; -.

L; L12030; G393182; -.

L; S4318; G786394; -.

L; D43804; G1304175; -.

L; D43805; G1304175; -.

L; A53497; A53497.
                                                                                                                                NOT NEUTROPHILS.

FUNCTION: STIMULATES THE PROLIFERATION OF BONE MARROW-DERIVED PROGENITOR CELLS IN THE PRESENCE OF IL-7 AS WELL AS GROWTH OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EVCADPKKEWVQ
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EICADPKQKWIQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       34
35
126
148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24
                                                                                                                                                                                                                                215:284-293(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     72; SMALL_CYTOKINES_CC; 1.
72; SMALL_CYTOKINES_CC; 1.
23 BY SIMILARITY.
4 148 MONOCYTE CHEMOTACTIC PROTEIN 1.
4 24 PYRROLIDONE CARBOXYLIC ACID (BY SIMILARITY).
5 75 BY SIMILARITY.
5 126 POTENTIAL.
6 126 POTENTIAL.
6 126 POTENTIAL.
77; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ĀĄ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          80.4%;
                                                                                                                                                                                                                                                                                                                                                                                                               CHORDATA;
                                                                                                                                                                                                                                                                                                          HEILKER
                                                                                                                                                                                                                                                                                                                                                  . н.,
                                                                                                                                                                                                                                                                                                                                                   'n
                                                                                                                                                                                                                                                                                                                                                KISHIMOTO T.;
S.A. 91:2305-2309(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 78; D
Pred. No. 1.
2; Mismatc
                                                                                                                                                                                                                                                                                                         ₽:
                                                                                                                                                                                                                                                      TOMITA
                                                                                                                                                                                                                                                                                                                                                                                                               VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                          SHIROZU
                                                                                                                                                                                                                                                     Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 1; I
1.91e-05;
                                                                                                                                                                                                                                                      JOHNSON
                                                                                                                                                                                                                                                                                                          .
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                                                                                                                                                                                                                                                                                                                                                                                                                TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                          NAKANO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 148
                                                                                                                                                                                                                                                      M.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                          Τ.,
                                                                                            (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                          HONJO
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EICADPKQKWIQ 12

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                             Query Match
Best Local S
Matches
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Best Local S
Matches
                                                                                                                                            -!- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (AI PROBABLY GENERATED BY ALTERNATIVE SPLICING.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA I C-X-C) (CHEMOKINE CXC).
EMBL; U16752; G571508; -.
EMBL; L36033; G1220366; -.
EMBL; L36033; G1220366; -.
PDB; 1SDF; 28-JAN-98.
PDB; 2SDF; 17-JUN-98.
MIM; 600835; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CYTOKINE;
SIGNAL
CHAIN
DISULFID
DISULFID
VARSPLIC
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SDF1_HUMAN STANDARD; PRT; 93 AA.
P48061;
P48061;
01-FEB-1996 (REL. 33, CREATED)
01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B
                                                                            DISULFID DISULFID
                                                                                                                                                                                                                                                               CRUMP M.P., GONG J.H., ARENZANA-SEISDEDOS F., CLARK-LEWIS I.;
                                                                                                                                                                                                                                                                                                                                                                                                                      HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; C
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              STIMULATING
                                                                                                CHAIN
                                                                                                                                                                                                                                                                                                                        MEDLINE: 96039262.
SHIROZU M., NAKANO T., INASHINOHARA T., HONJO T.;
GENOMICS 28:495-500(1995).
                                                                                                        SIGNAL
                                                                                                                                                                                                                                                       EMBO J. 16:6996-7007(1997).
                                                                                                                                                                                                                                                                                                                                                                                   SUBMITTED
                                                                                                                                                                                                                                                                                                      STRUCTURE BY NMR OF
                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. MEDLINE; 96039262.
                                                                                                                                                                                                                                                                                                                                                                                            SPOTILA L.D
                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE;
                                                                                                                   D-STRUCTURE.
           69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              69 QVCIDPKLKWIQ 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            μ
                                                                                                                                                                                                                                             FUNCTION: CHEMOATTRACTANT
                                                                                                                                                                                                                                    NOT NEUTROPHILS
QVCIDPKLKWIQ 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EICADPKQKWIQ 12
                            h 79.4%;
Similarity 66.7%;
8; Conservative
                                                                                                                        PSÓ0471; SMALL_CYTOKINES_CXC; FALSE_NEG.; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE
                                                                                                                                                                                                                                                                                            98046030.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PS00471;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PS00471; SMALL_CYTOKINES_CXC; FALSE_NEG CHEMOTAXIS; GROWTH FACTOR; SIGNAL: ALT
                                                                                                                                                                                                                                                                                                                                                                                  (OCT-1994)
                                                                    93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1
20
30
32
89
AA;
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20
30
32
3 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             FACTOR)
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89
55
71
71
89
10032
                                                                   10666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           79.48;
                                                                                                                                                                                                                                                                                                       22-88.
                                                                                                                                                                                                                                                                                                                                                                                                                                CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              (PBSF).
                                                                              19
93
71
                                                                                                                                                                                                                                                                                                                                                                                  Ö
                                                                                                                                                                                                                                                                       VIRELIZIER J.L.,
                                                                                                                                                                                                                                                                                                                                           INAZAWA
                                                                                                                                                                                                                                                                                                                                                                                  EMBL/GENBANK/DDBJ
                                                                   MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 77;
Pred. No.
2; Misma
                           Score 77; DB 1; I
Pred. No. 3.30e-05;
2; Mismatches 2
                                                                                             POTENTIAL.
STROMAL CE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STROMAL CELL-DERIVED FACTOR BY SIMILARITY.
BY SIMILARITY.
K -> KRLKM (IN FORM BETA).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        POTENTIAL.
                                                                                                                                                                                                                                             ACTIVE ON T-LYMPHOCYTES,
                                                                  4B9911C7 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        222C4E52 CRC32;
                                                                                                                                                                                                                                                                                                                                           J.,
                                                                                                                                                                                                     INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                            TASHIRO
                                                                                                                                                                                                                                                                        RAJARATHNAM K., AMARA
L., BAGGIOLINI M., SYKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; DB 1; I
. 3.30e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL;
                                                                                               CELL-DERIVED
                                                                                                                                                                                                                                                                                                                                                                                                                                TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                  DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ALTERNATIVE SPLICING
                                               Length 93;
                                                                                                                                                                                                                          (ALPHA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                  BANKS
                                                                                               FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                              Indels
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                                                                                                                                                                                                                                                                       SYKES B
                                                                                                                                                                                                                                             MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CELL GROWTH
                                                                                                                           SPLICING;
                                                                                                                                                                                                                          BETA)
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                                                                                                                                                                                                                                                                        B.D.,
                                                                                                                                                                                                                          ARE
                            Gaps
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RESULT 28

ID MILA_MOUSE STAC PIOS5; P14096; P1

AC P10855; P14096; P2

AC P10855; P14096 (REL DT 01-UL-1989 (REL DT 01-CT-1996 (REL DT 01-APR-1990 (REL DT 01-APR-1996 (REL DT 01-APR-1996 (REL DT 01-APR-1996 (REL DE MACROPHAGE INFLAM (REPARCOTA; METAZO OC EUTARYOTA; MEDLINE; 8909395; RA GALLEGOS C., COTTA OL EXP. MEDL 167. RA GALLEGOS C., COTTA OL EXP. MEDL 170. RA GALLEGOS C., COTTA OL EXP. MEDL 167. RA GALLEGOS C., COTTA OL EXP. MEDL 18; 8909395; RA GALLEGOS C., COTTA OL EXP. MEDL 18; 8909395; RA GROVE M., LOWE S. MEDLINE; 8910454; RA GALLEGOS C., COTTA OL EXP. MEDLINE; 9123711; RA MEDLINE; 9123711; RA MEDLINE; 9123711; RA MEDLINE; 9123711; RA MEDLINE; 8815474; RA MEDLIN
                                                                EMBL; M23447; G533241; -. EMBL; X12531; G53123; -. EMBL; X125372; G297531; -. EMBL; X3372; G201525; -. EMBL; M73061; G199655; -. FIR; A27596; A27596 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. SEQUENCE; 91237116. MEDLINE; 91237116. WIDMER U., YANG Z.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-JUL-1989 (REL. 11, CREATED)
01-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)
01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA) (TY-5)
(SIS-ALPHA) (HEPARIN-BINDING CHEMOTAXIS PROTEIN) (L2G25B).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE; 88154745.

WOLPE S.D., DAVATELIS G., SHERRY B., BEUTLER B., HES MOUPEN H.T., MOLDAWER L.L., NATHAN C.F., LOWRY S.F., J. EXP. MED. 167:570-581(1988).

-i- function: Monokine With inflammatory, pyrogenic properties. Has a potent Chemotactic activity fo BINDING TO A HIGH-AFFINITY RECEPTOR ACTIVATES CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. MEDLINE; 89184547.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GROVE M., LOWE S., NUCLEIC ACIDS RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
STRAIN=DBA/2J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                      -!- SIMILARITY: BELONGS TO
C-C) (CHEMOKINE CC).
EMBL; M23447; G533241; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE; 91016858.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. MEDLINE; 88258380.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               -1- TISSUE SPECIFICITY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 24-42.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             . IMMUNOL. 146:4031-4040(1991)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QUENCE FROM N.A.
DLINE; 89093958.
OWN K.D., ZURAWSKI S.M., MOS
IMMUNOL. 142:679-687(1989).
      MGI:98260; SCYA3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WEISSMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACAD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    , TEKAMP-OLSON P., WOLPE S COIT D., MERRYWEATHER J., 170:2189-2189(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 , TEKAMP-OLSON P., WOLPE S.D., COIT D., MERRYWEATHER J., CER/ 167:1939-1944(1988).
                                        MOHT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SCI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GRAHAM G., PRAGNELL 18:5561-5561(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S.M., MOSMANN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           . . .
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                                                                                                                                                                                                                                                                                                                                                                                                                             TO THE INTERCRINE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       s.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ß
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 92
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CERAMI A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A
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                                                                                                                                                                                                                                                                                                                                                                                                                                 BETA FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                               SPLEEN, AND PANCREAS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PLUMB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HESSE D.G.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FOR EOSINOPHILS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FOR EOSINOPHILS CALCIUM RELEASE
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                                                                                                                                                                                                                                                                                                                                                                                                                                 (SMALL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LUEDKE
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RESULTANCE REPORT OF THE PROPERTY OF THE PROPE
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Best Local S
Matches
                                                                                                   Query Match
Best Local
                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

MEDLINE; 91128376.

YOSHIMURA T., TAKEYA M., TAKAHASHI K.;

YOSHIMURA T., TAKEYA M., TAKAHASHI K.;

BIOCHEM. BIOPHYS. RES. COMMUN. 174:504-509(1991).

BIOCHEM. BIOPHYS. RES. COMMUN. 174:504-509(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-WAG/RIJ; TIS
MEDLINE; 90174947.
TIMMERS H.T.H.M., P
NUCLEIC ACIDS RES.
                                                                                                                                                               DISULFID
DISULFID
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHAIN
DISULFID
DISULFID
CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MCP1_RAT STANDARD; PRT; 148 AA.

P14844;

01-APR-1990 (REL. 14, CREATED)

11-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)

15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)

MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (IMMEDIATE-EARLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CYTOKINE;
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                          -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE CC).
C-C) (CHEMOKINE CC).
EMBL; X17053; G55531; -.
EMBL; X57441; G205334; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RATTUS NORVEGICUS (RAT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SERUM-RESPONSIVE JE PROTEIN).
SCYA2 OR JE OR MCP1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
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                                                                                                                                                                                                                                                                                                           SIGNAL
                                                                                                                                                                                                                                                                                                                                                   PROSITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       71 QICADSKETWVQ
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1 EICADPKQKWIQ
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S07723; S07723.
                                      EICADPNKEWVQ 84
  EICADPKQKWIQ 12
                                                                                                                                                                                                                                                                                                                                                                         P13500;
                                                                                                   Similarity
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                                                                                                                                                                                                                                                                                                                                CHEMOTAXIS;
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35
126
148
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522
522
522
                                                                            Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .M., PRONK G.J., BOS J.L., RES. 18:23-34(1990).
                                                                                                                                                                                                                                                                                                                                                                         1MCA.
                                                                                                                                                                 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE=KIDNEY;
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XIS; INFLAMMATORY RESPO
                                                                                                                                                                                                                                                                                                                                                 SMALL_CYTOKINES_CC;
                                                                                                                                                                                  59
75
126
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148
24
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                                                                                                   76.38;
66.78;
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58.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \frac{5}{2}
                                                                                                                                                               16460
                                                                                                                                                                                                                                                                                                                                SIGNAL;
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Pred.
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Pred.
                                                                                                                                                                                                                                           ; INFLAMMATORY RESPONSE; GLYCOPROTEIN. BY SIMILARITY. MONOCYTE CHEMOTACTIC PROTEIN 1. PYEROLIDONE CARBOXYLIC ACID (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
BY SIMILARITY.
BY SIMILARITY.
F -> L (IN REF. 3).
V -> A (IN REF. 3).
                                                                                                                                                           POTENTIAL. DB97F97C CRC32;
                                                                                                                                                                                                       BY SIMILARITY.
BY SIMILARITY.
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                                                                                Mismatches
                                                                                                   74;
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         74; DB 1; I
No. 1.67e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESPONSE; SIGNAL.
                                                                                                   DB 1; L
1.67e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VAN DER EB A.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TETRAPODA; MAMMALIA;
                                                                                                                  Length 148;
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                                                                              Indels
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Best Local
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TISSUE=MAST CELLS;
MEDLINE; 93094785.
KULMBURG P.A., HUBE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-OCT-1993
01-OCT-1993
15-JUL-1998
                                                                   DISULFID
DISULFID
CARBOHYD
CONFLICT
CONFLICT
                                                                                                                                                                                                        EMBL; S71251;
EMBL; X70058;
PIR; S30592;
                                                                                                                                                                                                                                     EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MONOCYTE CHEMOTACTIC PROCHEMOATTRACTANT PROTEIN SCYA7 OR MCP3 OR FIC.
                                                                                                                                                                                                                                                                                                       JARMIN D.I., KULMBURG P.A., HUBER N.E.
PRIESCHL-STRASSMAYR E.E., BAUMRUKER T.
J. IMMUNOL. 153:5720-5729(1994).
-I- FUNCTION: CHEMOTACTIC FACTOR THAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. MEDLINE; 94271193. THIRION S., NYS G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MCP3_MOUSE
                                                          SEQUENCE
                                                                                                                                                                            MGD; MGI:9951
PROSITE; PS00
                                                                                                                                                                                               HSSP;
                                                                                                                                                                                                                                                                 EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY (BY SIMILARITY).
-i- SUBUNIT: MONOMER (BY SIMILARITY)
-i- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. MEDLINE; 95081620.
                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
MEDLINE; 93204948.
HEINRICH J.N., RYSECK R.P., MACDONALD-BRAVO
MOL. CELL. BIOL. 13:2020-2030(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                          SUBMITTED (JUN-1992)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BIOCHEM. BIOPHYS. RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OPDENAKKER G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EUTHERIA; RODENTIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MUS MUSCULUS (MOUSE)
EUKARYOTA; METAZOA;
                                                                                                                            MOD_RES
                                                                                                                                        CHAIN
                                                                                                                                                                    CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                    WERNER
                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                          INFLAMMATORY
71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EXP.
                                                                                                                                                                                                                                                          C-C)
                                                                                                                                                                                                                 G-C) (CHEMOKINE CC).

712297; G57938; -...

104694; G192926; -...

12; S71251; G547089; -...

13; X70058; G437873; -...
EVCAEAHQKWVE 82
                                                                                                                                                                                                P13500; 1MCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         G P.A., HUBER N.E., MED. 176:1773-1778(
                           Similarity
                                                                                                                                                                 PS00472; SMALL_CYTOKINES_CC; 1.
; CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (REL.
(REL.
                                                                                                                          1 23
24 97
24 24
                                                                                                                                                                                                         S30592.
                                                                     33
34
57
74
                   Conservative
                                                          A,
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                                                                                                                                                                                     SCYA7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27, CREATED)
27, LAST SEQUENCE UPDATE)
36, LAST ANNOTATION UPDATE)
TIC PROTEIN 3 PRECURSOR (MCP-3)
ROTEIN 3) (INTERCRINE/CHEMOKINE
                          50
                                                          10999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FITEN P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CHORDATA;
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73
63
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                           .08;
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(1992).
                   Score
Pred.
5; M
                                                                                                                                                                                                                                                                                                                            HUBER N.E.,
                                                                                             PYRROLIDONE CARBOXYLIC SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
                                                        MISSING (IN REF. A -> R (IN REF. 682F557E CRC32;
                                                                                                                            MONOCYTE CHEMOTACTIC PROTEIN 3. PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MASURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 201:493-499(1994).
                   Mismatches
                           73;
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    в.J.,
                           DB 1; I
2.86e-04;
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                                                                                                                                                                                                                                                                                              AUGMENTS
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                                                                                                                                                                                                                                                                                                                                      BAUMANN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WRANN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VAN DAMME
                                                                                                                                                                                                                                                                                                                                                                                    H., BRAVO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    :
:
                                   Length 97;
                                                                                                                                                                                                                                                                                              MONOCYTES A
                                                                                                                                                                                                                                                                                                                                     <u>و</u>.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (MONOCYTE MARC) (FIC PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BAUMRUKER
                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     J.,
                                                                                                                                                                                                                                                                                               S AND
ANTI-TUMOR
                  0,
                 Gaps
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1 79 81.4 395 11 03593	o. is the number of results preceder than or equal to the scoderived by analysis of the tota  SUMMARIES  Query Match Length DB ID	sptrembl8 1:sp_archea 2:sp_bacte 5:sp_invertebrate 6:sp 9:sp_phage 10:sp_plant 13:sp_vertebrate 14:sp Mean 25:578; Variance 3	on: (core: 9 able: P essing: M	Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd  MPsrch_pp protein - protein database search, using Smith-Waterman algorithm Run on: Thu Apr 1 07:42:02 1999; MasPar time 5.02 Seconds Tabular output not generated.	
74 51 52.6 100 14 040501 75 51 52.6 188 5 045136 76 51 52.6 215 3 040843 77 51 52.6 257 11 088827 78 51 52.6 306 5 023084 79 51 52.6 388 1 05197 80 51 52.6 573 2 025431 81 51 52.6 629 5 P91819 82 51 52.6 629 5 P91819 83 51 52.6 822 4 075075 84 51 52.6 823 4 075075 85 51 52.6 829 4 025077 87 51 52.6 899 4 0213527 87 51 52.6 1038 10 023532 88 51 52.6 1038 10 023532 90 51 52.6 1038 10 023533 91 51 52.6 1231 5 026153 93 50 51.5 186 5 045847 93 50 51.5 332 1 028318	52 53.6 825 2 P73065 52 53.6 841 5 Q24032 52 53.6 841 5 Q4303 52 53.6 1589 5 Q45569 52 53.6 1825 5 Q61210 52 53.6 1872 11 P70208 52 53.6 2276 4 Q75050 51 52.6 71 7 Q31525 51 52.6 94 14 Q76035	53 54.6 991 10 080820 53 54.6 991 10 080820 52 53.6 146 14 084776 52 53.6 146 14 084738 52 53.6 172 2 051136 52 53.6 172 2 051036 52 53.6 475 4 060646 52 53.6 724 10 081100	54. 55.7 26926 4 Q10466 53. 54.6 117 10 Q42317 53. 54.6 1143 2 Q50035 54.6 143 2 Q50035 54.6 143 2 P74671 53. 54.6 248 10 081404 53. 54.6 350 3 Q06131 53. 54.6 367 3 Q12123 54.6 467 10 Q42719 53. 54.6 497 10 Q42610 53. 54.6 497 10 Q42610 53. 54.6 853 10 Q42150 53. 54.6 853 10 Q42150 53. 54.6 853 10 Q42150 53. 54.6 853 10 Q42150 53. 54.6 853 10 Q42150	55 56.7 108 11 070460 55 56.7 178 2 031562 55 56.7 192 10 023556 55 56.7 282 2 p96965 56.7 859 14 097013 55 56.7 1361 10 004264 54 55.7 1361 10 004264 54 55.7 208 2 06669 54 55.7 208 2 06669 54 55.7 208 2 06669	64 66.0 760 3 Q99126 62 63.9 109 4 Q43927 60 61.9 1053 2 Q84834 59 60.8 399 14 Q68409 58 59.8 522 5 Q61090 57 58.8 187 2 Q83290 57 58.8 187 2 Q67634 57 58.8 203 14 Q67634 57 58.8 1224 5 P91309 56 57.7 30 10 Q65736
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035188;
01-JAN-1998;
01-JAN-1998;
01-NOV-1998
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SCYD1.
MUS MUSCULUS (MOUSE).
WIKARYOTA; METAZOA; CHORDATA; VI
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STRAIN-BALB/C; TISSUE-BRAIN;

ROSSI D., HARDIMAN G., COPELAND N., GILBERT D.J., JENI

ROSSI D., BAZAN J.F.;

SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.

EMBL; U92565; G2459677; -.

EMBL; U92565; G2459677; -.

PFAM; PF00048; il8; 1.
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MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VI
SCIUROGNATHI; MURIDAE; MURINAE;
                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                 NATURE 387:611-617(1997).
EMBL; AF010586; G2317698; -.
MGD; MGI:1097153; SCYD1.
PFAM; PF00048; i18; 1.
                                                                                                                                                                                                                                                                                                                                GUTIERREZ-RAMOS J.C., GEARING D.;
"Neurotactin, a membrane-anchored
inflammation.";
                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE; 97320499.

PAN Y., CLARE L., HONG Z., DOLICH S., D
GOSSELIN M., MA J., DUSSAULT B., WOOLF
GUTIERREZ-RAMOS J.C., GEARING D.;
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larity 72.7%;
Conservative
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larity 72.78;
Conservative
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                                                                                                    Score 79; DB 11;
Pred. No. 1.26e-04;
3; Mismatches 0
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Pred. No. 1.26e-04;
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LAST ANNOTATION UPDATE)
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E; MUS.
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E; MUS.
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ALPERIN A., O
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NARDELLI B., PIPPALLA V., GE
GENTZ R., GAROTTA G.;
J. EXP. MED. 0:0-0(0).
EMBL; U85768; G1916252; -.
PFAM; PF00048; 118; 1.
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O19093;

O1-NOV-1998 (TREMBLREL. 08,

O1-NOV-1998 (TREMBLREL. 08,

O1-NOV-1998 (TREMBLREL. 08,
                                                                                                                                                                                                                                                                                                     CHAIN
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                          SUBMITTED (JUL-1998) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; AF053313; G3551819; -. EMBL; AJ007862; E1312757; -.
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UTANS-SCHNEITZ U., LOREZ H.,
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                                                                                                                                                                                                                                                                                                                                          SIGNAL.
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llarity 58.3%;
Conservative
                                                          PRELIMINARY;
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brain inflammation.";
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Pred. No.
4; Misma
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Pred. No. 1.56e-03;
3; Mismatches 0
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CC CHEMOKINE :
053405BD CRC:
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O1-NOV-1998 (TREMBLREL. 0)
O1-NOV-1998 (TREMBLREL. 0)
O1-NOV-1998 (TREMBLREL. 0)
CC CHEMOKINE ABCD-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NISHIMURA M., KAKIZAKI M., NOMIYAMA H., YOSHIE O.;
SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U88320; G2196920; -.
EMBL; AF001979; G2624925; -.
EMBL; AB002409; D1022673; -.
PPAM; PPO0048; 118; 1.
SEQUENCE 134 **
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OT NOV 1200 (COLONDATA; VERTEBRATA; EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; EUKARYOTA; METAZOA; CHORDATA; MURINAE; MURINAE;
                                                                                                                                                                                                                                                                               "Activated murine B lymphocytes and dendritic cells produce a CC chemokine which acts selectively on activated T cells."; J. EXP. MED. 188:451-463(1998).
EMBL; AF052505; G3378116; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Identification and characterization containing six conserved cysteines.", J. IMMUNOL. 159:1589-1593(1997).
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HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                            SIDERAS P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                         SHIMIZU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SCHANIEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE;
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SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
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BETA CHEMOKINE EXODUS-2.
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74 DICADPRQVWV 84 :|||||:||:|: 1: 1 EICADPKQKWI 11
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                                                                                                                                                                                                                                                  92 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                               PARDALI E., SALLUSTO F., SEIDL T., ANDERSSON J., M
                                                                                                                         Conservative
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                                                                                                                                                                                                                                                  10302 MW;
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66.7%;
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63.6%;
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Pred.
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LAST ANNOTATION UPDATE)
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Pred. No. 1.56e-03
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                                                                                                                                                      DB 11;
2.57e-03;
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                                                                                                                                                                               Length 92;
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AC 057411;
AC 057411;
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UFURLED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UFURLED)
DT 01-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)
DE LYMPHOTACTIN PRECURSOR.
DE LYMPHOTACTIN PRECURSOR.
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OS GALLUS GALLUS (CHICKEN).
ON GALLUS GALLUS (CHICKEN).
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099664;
01-MAY-1997 (TREMBLREL. 0
01-MAY-1997 (TREMBLREL. 0
01-NOV-1998 (TREMBLREL. C
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O14745

O14745

O1-NOV-1996 (TREMBLREL 01, CREATED)
O1-NOV-1996 (TREMBLREL 01, LAST SEQUENCE UPDATE)
O1-NOV-1998 (TREMBLREL 08, LAST ANNOTATION UPDATE)
LD78 ALPHA BETA PRECURSOR (FRAGMENT).
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL
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HOMO SAPIENS (HUMAN)
                      CHEMOKINE EXODUS
                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUBMITTED (AUG-1995) TO EMBL/GENBANK/DDBJ EMBL; D63785; G961440; -. PS00472; SMALL_CYTOKINES_CC; 1.
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KATSURAGI S., KIN Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-BRAIN;
ISHIZUKA K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATARRHINI;
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50.0%;
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80
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97
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OHMOTO Y.,
                                    03,
03,
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Pred. No. 1...
4; Mismatch
                                  CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pred. No. 6.85e-03;
1; Mismatches 3;
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LYMPHOTACTIN.
3290101C CRC
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                                                                                                                                                                                                                                                                                                                                                                                          LD78 ALPHA
                                                                                                                 PRT;
                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     K., NAKASHIMA
NOMIYAMA H., I
                                                                                                                                                                                                                                                                                                                                                                                            ALPHA BETA
                                                                                                                 95
                                                                                                                                                                                                                                                                                            DB 4; L
1.11e-02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OII
                                                                                                                                                                                                                                                                                                          Length 80;
                                                                                                                                                                                                                                                                          2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         H.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OHUCHI K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97;
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                                                                                                                                                                                                                                                                      Gaps
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RESULT 11

ID 055038

AC 055038;
DT 01-JUN-1998 (
DT 01-JUN-1998 (
DT 01-WY-1998 (
DT 01-WY-1998 (
DE BLYMPHOCYTE
OS MUS MUSCULUS
OC EUKRAYOTA; ME
OC SCIUROGNATHI;
                                                                                                                                                                                                                                                            RESULT 10
ID P7884;
DT 01-MAY-1997 (
DT 01-MAY-1997 (
DT 01-NOV-1998 (
DT 01-NOV-1998 (
DE CC CHEMOKINE
OS EUKARYOTA; ME
OC SCIUROGNATHI;
RN [2]
RP SEQUENCE FROM
RC STRAIN-SPRAGU
RA KELNER G.S.,
RI SUBMITTED (FE
RN [2]
RP SEQUENCE FROM
RC STRAIN-FISHER
RP STRAIN-FISHER
RA UTANS-SCHNEIT
RA LESSLAUER W.;
RT 1 MOUTH THE W.;
RT 1 NEUROINMUN
DR EMBL; D90447; 15 u
DR EMBL; J90447; 15 u
DR EMBL; J90448;
EMBL; J90448
KW SIGNAL,
SQ SEQUENCE 96
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Best Local :
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                   [2]
SEQUENCE FROM N.A.
STRAIN-FISHER 344; TISSUE-BRAIN;
STRAIN-FISHER 344; TISSUE-BRAIN;
 B LYMPHOCYTE CHEMOATTRACTANT BLA
MUS MUSCULUS (MOUSE).
EUKARYOTA, METAXOA; CHORDATA; YI
SCIUROGNATHI; MURIDAE; MURINAE;
                                                                                                                                                                                                                                                                                    "A novel rat CC chemokine, identified by targeted differential display, is upregulated in brain inflammation.";
J. NEUROIMMUNOL. 0:0-0(1998).
EMBL; 090447; G1899246; -..
EMBL; AF053312; G3551817; -.
EMBL; PF00048; i18; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
STRAIN-SPRAGUE-DAWLEY;
KELNER G.S., MACHENDENSKI-LENOIR D., LEE E.
KELNER G.S., MACHENDENSKI-LENOIR D., LEE E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE; 97275143.
HROMAS R., GRAY P.W., CHANTRY
BELL G.I., TAKEDA J., ARONICA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LURAKIUTA; METAZOA; CHÓRDATA;
SCIUROGNATHI; MURIDAE; MURINAE
[1]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RATTUS NORVEGICUS (RAT)
EUKARYOTA; METAZOA; CHO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KLEMSZ M.J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE-PANCREAS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                         73 VCADPKQIWV :||||||| |: 2 ICADPKQKWI
                                                                                                                                                                                                                                                                                                                                                                 ESSLAUER W.;
                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity ies 6; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             72 VCANPKQTWV 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHEMOKINE EXODUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N
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                                                                                                                                                                                                          l Similarity
7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (TREMBLREL.)
(TREMBLREL.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          95 AA;
                                                                                                                                                                                                                                                              96 AA;
                                    (TREMBLREL. 06, CREATED)
(TREMBLREL. 06, LAST SEQUENCE UPDATE)
(TREMBLREL. 08, LAST ANNOTATION UPDATE)
E CHEMOATTRACTANT BLC.
                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       72.2%;
larity 60.0%;
Conservative
                                                                                                                                                                                                            Conservative
                                                                                                                                                                                 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3; 1.
10691 MW;
                                                                                                                                                                                                                         72.2%;
70.0%;
                                                                                                                                                                                                                                                              10875 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MURINAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                803,
                                                                                                                                                                                                          Score 70; D. Pred. No. 1. 2; Mismatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CREATED)
LAST SEQUENCE UF
LAST ANNOTATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 70; DB 4; 1
Pred. No. 1.11e-02
3; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA; E; RATTUS.
 VERTEBRATA;
E; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1526B4C0 CRC32;
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GORDON M.,
                                                                                                       109
                                                                                                                                                                                                                                                                                                                                                                             W.E.F.,
                                                                                                                                                                                                                         DB 11;
1.11e-02;
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DATA BANKS.
             MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          novel beta-chemokine.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                UPDATE)
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                                                                                                                                                                                                            ب
د
                                                                                                                                                                                                                                                                                                                                                                             DA SILVA J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1;
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                                                                                                                                                                                                                                  Length 96;
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             EUTHERIA;
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             RODENTIA;
                                                                                                                                                                                                           Gaps
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RESULT RE
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SEQUENCE FROM N.A.
STRAIN-C57BL/6J;
X MEDLINE; 98146056.
A GUNN M.D., NGO V.N., ANSEL K.M., EKLAN WILLIAMS L.T.;
RT "A B-cell-homing chemokine made in lyr
RT Burkitt's lymphoma receptor-1.";
RL NATURE 391:799-803(1998).
RR EMBL, AF044196; G2911374; -..
DR EMBL, AF044196; G2911374; -..
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Best Local S
Matches
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Best Local
                                                                                  Matches
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015467; PRELIMINARY;
015467; PREMBLREL. 05,
01-JAN-1998 (TREMBLREL. 05,
01-NOV-1998 (TREMBLREL. 08,
1L-10-INDUCIBLE CHEMOKINE.
                                                                                                                                                                 SIGNAL.
SEQUENCE
                                                                                                                                                                                                                                               EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SHOUDAI K., HIESHIMA K., YOSHIE O., NOMIYAMA H.; BIOCHIM. BIOPHYS. ACTA 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ILINCK OR SCYA16.
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                        BIOCHEM. BIOPHYS. RES. COMMUN. EMBL; U91746; G2581781; -.
                                                                                                                                                                                                                                                                                                                                                   "Isolation and characterization of LMC, a no monocyte chemoattractant human CC chemokine,
                                                                                                                                                                                                                                                                                                                                                                                           YOUN B.S., ZHANG S., HANGOC G., KWON B.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Structure of a region of SUBMITTED (AUG-1998) TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. NOMIYAMA H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
HEDRICK J.A., HELMS A.,
SUBMITTED (NOV-1997) TO
                                                                                                                                                                                                                                                                                                                                                                        "Isolation and characterization
                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATARRHINI;
                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE; 98308096.
                                        74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              74 ICVNPRAKWLQ
    ب
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EICADPKQKWIQ 12
                                        EVCTNPNDDWVQ
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                                                                                                                                                                                                       AB007454; D1024963; -. AF088219; G3719365; -. AF055467; G3395776; -. PF00048; il8; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                       Similarity
                                                                                                                                                                   120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HOMINIDAE;
                                                                              70.1%;
llarity 41.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                   AA;
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                                                                                                                                                                   13600
                                                                                                                                                                                                                                                                                                                                                                                                              BROXMEYER H.E., ANTOL K., FRASER M.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of 181 kb containing five CC of 181 kb containing five CC of EMBL/GENBANK/DDBJ DATA BANKS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FUKUDA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 68; D. Pred. No. 2. 3; Mismatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                              Score 68; DB 4; I
Pred. No. 2.91e-02;
6; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERTEBRATA; MAMMALIA;
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                                                                                                                                                                                                                                                                                                             247:217-222(1998).
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2.91e-02;
2;
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                                                                                                                                                                                                                                                                                                                                                 novel lymphocyte and ne, with myelosuppres
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                                                                                                                        Length 120;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                chemokine
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                                                                                                                                                                                                                                                                                                                                                                                                              JR.,
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                                                                                0;
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                                                                                Gaps
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AC 099

AC 099

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AC 090

DT 011

DT 011

DT 011

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           RESULT
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AC 00
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Matches
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Best Local S
Matches
O62812 PRELIMINARY;
O62812;
O1-AUG-1998 (TREMBLREL. 0
01-AUG-1998 (TREMBLREL. 0
01-AUG-1998 (TREMBLREL. 0
INTERLEUKIN-8 (FRAGMENT).
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ectaxins,";
SUBMITTER
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043646
043646;
01-JUN-1998
01-JUN-1998
01-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LT 13
093238
093238;
01-NOV-1998 (TREMBLREL 08, CREATED)
01-NOV-1998 (TREMBLREL 08, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL 08, LAST ANNOTATION UPDATE)
01-NOV-1998 (TREMBLREL 08, LAST ANNOTATION UPDATE)
CC CHEMOKINE-1.
CYPRINUS CARPIO (COMMON CARP).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTERYGII;
TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINOIDEA;
CYPRINIDAE; CYPRININAE; CYPRINUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIGNAL
CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Structure of a region of 181 kb containing five CC of SUBMITTED (AUG-1998) TO EMBL/GENBANK/DDBJ DATA BANKS EMBL; AF043341; G2905632; -.
EMBL; AF088219; G3719366; -.
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
JANG J.S., KIM B.E.;
SUBMITTED (JAN-1998)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATARRHINI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NOMIYAMA H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                    71 QVCANPEKKWVR ::||:| ||::
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RYOTA; METAZOA; CHORDATA;
RRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EICADPKQKWI 11
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41.7%;
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54.5%;
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                                          LAST SEQUENT LAST ANNO
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LAST SEQUENCE ANNOTED ANNOTED ANNOTED AND ADDRESS AND ADD
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Pred. No.
4; Misma
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Pred. No. 7.51e-02;
5; Mismatches 2;
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CF404FAD
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ANNOTATION UPDATE)
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homologous
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4.68e-02;
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Best Local S
Matches
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Q98158, 01259;
01-FEB-1997 (TREMBLREL. (
01-JUL-1997 (TREMBLREL. (
01-NOV-1998 (TREMBLREL. (
                                                                       NEIPEL F., ALBRECHT J.C., FLECKENS "Cell-homologous genes in the Kapchuman herpesvirus 8: determinants J. VIROL. 71:4187-4192(1997).
                                                                                                                                                                                                             RUSSO J.J., BOHENZKY R.,
PARRY J.P., PERUZZI D.,
SUBMITTED (MAY-1997) TO
                                                                                                                                                                                                                                                                                                                                                                                                        RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHI
PARRY J.P., PERUZZI D., EDELMAN I.S., CHAN
SUBMITTED (OCT-1996) TO EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE; 97121480.

RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M. PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE "Nucleotide sequence of the Kaposi sarcoma-associated"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
MEDLINE; 97094384.
MOORE P.S., BASHOFF C.,
"Molecular mimicry of h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KAPOSI'S SARCOMA-ASSOCIATED HERPE
VIRUSES; DSDNA VIRUSES, NO RNA SI
GAMMAHERPESVIRINAE; RHADINOVIRUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBMITTED (APR-1998) TO EMBL/GENBANK/DDBJ
EMBL; AF062377; G3126973; -.
NON_TER 97 97
SEQUENCE 97 AA; 10742 MW; 00396FBF CRC
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EQUUS CABALLUS (HORSE).
EUKARYOTA; METAZOA; CHORDATA;
PERISSODACTYLA; EQUIDAE; EQUUS
[1]
SUN R., LIN S.-F., MILLER G.;
SUBMITTED (SEP-1996) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                            SUBMITTED
                                                                                                                                                                                                                                                                                                        NICHOLAS J., RUVOLO NENDRICKSON S., GUO NENDRICKSON S., GUO NENDRICKSON S., GUO NENDRICKSON S., GUO NENDRICKSON S., RUVOLO NENDRICKSON S., GUO NENDRICK
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TISSUE-BRONCHOALVEOLAR TISSUE;
                       SEQUENCE FROM N.A. SUN R., LIN S.-F.,
                                                                                                                                                     SEQUENCE FROM N.A. MEDLINE; 97296220.
                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         genes by KSHV.";
SCIENCE 274:1739-1744(1996).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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6; Conser
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                                                                                                                                                                                                                                                                                                    V.R., BURNS W.H., SANT
H.G., HAYWARD G.S., RE
) TO EMBL/GENBANK/DDBJ
                                                                                                                                                                                                             R.A., CHIEN M.C., CHEN J., D., EDELMAN I.S., CHANG Y., TO EMBL/GENBANK/DDBJ DATA 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S.A.
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                                                                                   FLECKENSTEIN B.;
the Kaposi's sarcoma-associated
rminants of its pathogenicity?";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 66; E
Pred. No. 7.
3; Mismatc
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LAST SEQUENCE UI
LAST ANNOTATION
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e and
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S., REITZ M.S.;
ODBJ DATA BANK
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J DATA
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MOORE P.
BANKS.
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01-MAY-1997 (TREMBLREL. 03
01-MAY-1997 (TREMBLREL. 03
01-NOV-1998 (TREMBLREL. 08
CX3C CHEMOKINE PRECURSOR.
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SEQUENCE 95 AA; 10485
                                                                                                            JLT 18
000626
000626;
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                              HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
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01-JUL-1997 (TREMBLREL. 04, 1
01-NOV-1998 (TREMBLREL. 08, 1
MACROPHAGE-DERIVED CHEMOKINE
MDC OR A-152E5.1.
                                                                                                                                                                                                                                                                                                            ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.; "HOMO SAPIENS CHOROSOME 16 BAC Clone CIT987SK-A-152E5."; SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; U91835; G1899259; -.
                                                                                                                                                                                                                                                                                                                                                                                             BAZAN J.F., BACON K.B., HARDIMI
GREAVES D.R., ZLOTNIK A., SCHAL
"A new class of membrane-bound
NATURE 385:640-644(1997).
 GODISKA
           SEQUENCE
                                                                                                                                                                                                                                                  SEQUENCE
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EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
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                                                                                                                                                                 2 ICADPKQKWI 11
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CHANTRY D.,
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., SCHALL T.J.;
e-bound chemokine with
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RAPORT C.J.,
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                                                                      LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDAT
E PRECURSOR.
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4; M
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Pred. No. 1.20e-01
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093D7D CRC32;
SOZZANI S.,
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ALLAVENA
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009002; OTREMBLREL 04, CR
01-JUL-1997 (TREMBLREL 04, LI
01-NOV-1998 (TREMBLREL 08, LI
01-NOV-1998 (TREMBLREL 08, LI
                                                                                                                                        SEQUENCE FROM N.A.

HEDRICK J.A., ZLOTNIK A.;

SUBMITTED (MAX-1997) TO EMBL/G

EMBL; AF006637; G2209189; -.

EMBL; AF001980; G3624927; -.

MGD; MGI:1097677; SCYA521.

PFAM; PF00048; 118; 1.
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SEQUENCE
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TANABE S., LU Z., LUO Y., QUACKENBUSH E.J., BERMAN M. COLLINS-RACIE L.A., MI S., REILLY C., LO D., JACOBS K SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VI
SCIUROGNATHI; MURIDAE; MURINAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADÂMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.; "HOMO SAPÍENS C'HOMOSOMO 16 BAC C'LODE C'LT987SK-A-152E5."; SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; U83171; G1931581; -.. EMBL; U8329; G2062425; -.. EMBL; AC004382; G3252820; -.
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MENG T., BOONE T., ANDREW D.P.;
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA
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ADAMS M.D., LOFTUS B.,
BRANDON R., KIM U.J.,
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J. EXP. MED.
                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                       "IDENTICK J.A., ZLOTNIK A.;
"Identification and characterization containing six conserved cysteines.";
J. IMMUNOL. 159:1589-1593(1997).
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73
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ELCANPEEGWVQ 84
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185:0-0(0).
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MACROPHAGE-DERIVED CHEMOKINE
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E; MUS.
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LO D., JACOBS K.A.,
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J.C.;
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MUS MU
                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN-RK32 (A2B3);

XOCONOSTLE-CAZARES B., LEON-RAMIREZ C.,

MICROBIOLOGY 142:377-387(1996).

EMBL; X87748; G861151; -.

SEQUENCE 760 AA; 85181 MW; 2F24C4C9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  USTILAGO MAYDIS (SMUT FUNGUS).
EUKARYOTA; FUNGI; BASIDIOMYCOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CHITIN SYNTHETASE I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ EMBL; U88322; G3169697; -. MGD; MGI:1097677; SCYA21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE; 97444139."

HROMAS R., KIM C.H., KLEMSZ M., KRATHWOHL M., FIFE K., COO SCHNIZLEIN-BICK C., BROXMEYER H.E.;

"Isolation and characterization of Exodus-2, a novel C-C c with a unique 37-amino acid carboxyl-terminal extension.";

J. IMMUNOL. 159:2554-2558(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-AUG-1998
01-NOV-1998
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01-JUL-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USTILAGINOMYCETIDAE; USTILAGINALES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE=TOTAL FETUS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FISSUE=TOTAL FETUS;
                                                                                                                                                                                                                                       483 EICAETKGKW 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IROMAS R.A.;
                                                                                                                                                                                                                                                                                                                                                              Local Similarity
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ARYOTA; METAZOA; CHORDATA; VERTEBRATA;
UROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ELCANPEEGWVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CHEMOKINE
                                                                                                                                                                                                                  EICADPKOKW
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   (TREMBLREL.
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                                                                                              PRELIMINARY;
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70.0%;
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14600 MW;
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07,
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1; 1
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CREATED)
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LAST SEQUENCE UPDATE)
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Pred. No. 1.91e-01
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                                                                                                                                                                                                                                                                                                                                                                                                                                                2F24C4C9 CRC32;
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                                                                                                                                                                                                                                                                                                                             Mismatches
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ES; USTILAGINACEAE;
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No. 1.91e-01;
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                                                                                                                                                                                                                                                                                                                                                                                   Length 760;
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WILLIAMS L.T.;

"A B-cell-homing chemokine made in Burkitt's lymphoma receptor-1.";

NATURE 391:799-803(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
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Best Local Similarity
   Query Match
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084834;
084834;
01-NOV-1998
01-NOV-1998
01-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=D/UW-3/CX;
STEPHENS R.S., KALMAN :
MITCHELL W.P., OLINGER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.

NAPOLITANO M., SPINETTI G., GAETANO C., CAPOGROSSI C.
SUBMITTED (OCT-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AJ002211; E1249325; -.
EMBL; AF044197; G2911376; -.
EMBL; AF029894; G3169814; -.
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BAGGIDLINI M., MOSER B.;
"B cell-attracting chemokine l, a human CXC chemokine expressed lymphoid tissues, selectively attracts B lymphocytes via BLR1/CX J. EXP. MED. 187:655-660(1998).
                                                          EMBL; AE001355; SEQUENCE 1053
                                                                                                                                                                     STRAIN-D/UW-3/CX;
STEPHENS R.S., KALMAN S., LAMMEL C.J.,
MITCHELL W.P., OLINGER L., TATUSOV R.L.
                                                                                                                                                                                                                                                                                                                            Chlamydia trachomatis. SCIENCE 0:0-0(1998).
                                                                                                                                                                                                                                                                                                                                                                                                              DAVIS R.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BACTERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHLAMYDIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1998 (TREMBLREL. 08
01-NOV-1998 (TREMBLREL. 08
01-NOV-1998 (TREMBLREL. 08
RIBONUCLEOSIDE REDUCTASE,
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EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CXC CHEMOKINE
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                                                                                                                    SUBMITTED (MAY-1998)
                                                                                                                                                DAVIS R.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NRDA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
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                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TRACHOMATIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CHLAMYDIALES;
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23
109 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
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                                                             G3329297;
AA; 1201
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109
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54.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12664 MW;
   61.9%;
                                                                                                                 TO EMBL/GENBANK/DDBJ DATA BANKS
                                                             120168
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                                                                                                                                                                                                                                                                                                                                                                                      Obligate Intracellular
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                                                                                                                                                                                                                                                                                                                                                                                                                                       LAMMEL C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3, LAST SEQUENCE UPDATE)
8, LAST ANNOTATION UPDATE)
LARGE CHAIN.
                                                             MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CREATED)
   Score
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Pred. No. 4.77e-01;
1; Mismatches 4
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                                                             781C1449 CRC32;
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   60;
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Length 1053;
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                                                                                                                                                                           MARATHE R.,
Q., KOONIN E
                                                                                                                                                                                                                                                                                                                                                                                                                                             MARATHE R., ARAVIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
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                                                                                                                                                                                                          ARAVIND L.,
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Best Local :
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01-AUG-1998 (TREMBLREL. 07, C
01-AUG-1998 (TREMBLREL. 07, I
01-AUG-1998 (TREMBLREL. 07, I
SERINE RICH PROTEIN HOMOLOG (
PLASMODIUM VIVAX.
                                     Q93290
Q93290;
Q1-FEB-1997
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Q1-NOV-1998
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Q68409;
Q1-NOV-1996;
Q1-NOV-1996;
Q1-NOV-1998;
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  HYPOTHETICAL C27D8.3.
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SUBMITTED (MAR-
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STRAIN-SALVADOR I;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CHA T.A., TOM E., KEMBLE G.W., DUKE G.M., MOCARSKI E.S., "Human cytomegalovirus clinical isolates carry at least 1 found in laboratory strains.";
J. VIROL. 70:78-83(1996).
EMBL: U33332; G1167943; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE; 96099416.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HUMAN CYTOMEGALOVIRUS. VIRUSES; DSDNA VIRUSES,
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                                                                                                                                                                                                                                                         158 CPAPKENWI 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          308 VCEEPKHEW 316
                                                                                                                                                                                                                                                                                                                       Local
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                                                                                                                                                                                                                                                                                                   Similarity 55.6% 5; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    (MAR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS
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                                                                                                                                                                                                                                                                                                                                                                                        522 AA;
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(TREMBLREL.)
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                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               arity 60.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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                                                                                                                                                                                                                                                                                                                                                                                        58070 MW;
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                        C27D8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APICOMPLEXA; HAEMOSPORIDA; PLASMODIUM.
                                        02, CREATED)
05, LAST SEQUENCE UPDATE)
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LAST SEQ
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Pred. No.
                                                                                                                                                                                                                                                                                                                     Score 58;
Pred. No.
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2; N
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LAST SEQUENCE UPDATE)
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(FRAGMENT).
                                                                                                                              PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    79B5D103 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STAGE;
                                                                                                                                                                                                                                                                                                                                                                                        B1E4CEB2 CRC32;
                                                                                                                                                                                                                                                                                                 e 58; DB 5; Let
. No. 2.83e+00;
Mismatches 1;
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ANNOTATION UPDATE)
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1.82e+00;
-hes 2;
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19 genes not
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Best Local S
Matches
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083516 PRELIMINARY; ...

083516; OR STREMBLEEL 08, CR

01-NOV-1998 (TREMBLEEL 08, LA

1 01-NOV-1998 (TREMBLEEL 08, LA)
                                                                                                                                                                                                                                                                                                                     Spirochete.
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EMBL; 280214; E347995; -.
HYPOTHETICAL PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 elegans.
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                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                   SCIENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BACTERIA;
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                                                                                                        VENTER J.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               188 VCPEAKQWWTQ 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 ICADPKQKWIQ 12
                                                                                                                                                                                                                                                                                               281:375-388(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         59.8%;
Similarity 45.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FROM N.A.
98332770.
                                                                                                                                                                                                                                                         FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
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LAST SEQUENT ANNOTATION OF THE PROPERTY OF THE PROPER
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MEDLINE; 98332770.

FRASER C.M., NORRIS S.J., WEINSTOCK G.M., WHITE O., SUTTON G.G.,
FRASER C.M., GUINN M., HICKEY E.K., CLAYTON R., KETCHUM K.A.,
DODSON R., GWINN M., HICKEY E.K., CLAYTON R., KETCHUM K.A.,
SODERGREN E., HARDHAM J.M., MCLEOD M.P., SALLBERG S., PETERSON J.,
SODERGREN E., HARDHAM J.M., MCLEOD M.P., SALLBERG S., PETERSON J.,
KHALAK H., RICHARDSON D., HOWELL J.K., CHIDAMBARAM M., UTTERBACK T.,
KHALAK H., RICHARDSON D., HOWELL J.K., CHIDAMBARAM M., UTTERBACK T.,
MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S
MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S
MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S
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                                                                                                                                                      FRASER C.M., NORRIS S.J., WEINSTOCK G.M., WHITE O., SUTTON G.G., DODSON R., GWINN M., HICKEY E.K., CLAYTON R., KETCHUM K.A., SODERGREN E., HARDHAM J.M., MCLEOD M.P., SALZBERG S., PETERSON J., SODERGREN E., HARDHAM J.M., HOWELL J.K., CHIDAMBARAM M., UTTERBACK T., KHALAK H., RICHARDSON D., HOWELL J.K., CHIDAMBARAM M., UTTERBACK T., MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S., HATCH B., HORST K., ROBERTS K., WATTHEY L., WEIDMAN J., SMITH H.O.,
SUBMITTED (MAR-1998) TO EMBL/GENBANK/DDBJ DATA EMBL; AE001226; G3322795; -. HYPOTHETICAL PROTEIN. SEQUENCE 187 AA; 21410 MW; 50303E26 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
RHABDITINA; RHABDITOIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Complete Genome Sequence of Treponema pallidum,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 5; L, 2.83e+00;
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2.2 Mb of c
elegans.";
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                                                                                                                                                                                                                                                            STRAIN-BRISTOL N2;
WILSON R., AINSCOUGH R., ANDERSON K., BAYNES C., BERKS M., BONFIELD WILSON R., CONNELL M., COPSEY T., COOPER J., COULSON A., CRAXTON M., BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A., CRAXTON M., DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J., KIRSTEN J., LAISTER N., LATREILLE JOHNSTON L., JONES M., KERSHAW J., KIRSTEN J., LAISTER N., LATREILLE JOHNSTON L., JONES M., PERCY C., MCMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C., MCMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C., MCMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C., MCMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C., MCMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C., MCMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C., MCMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C., MCMURRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., SMALDON N., SMITH A.
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VIROLOGY 213:590-599(1995).
EMBL; U34966; G1185444; -.
PFAM; PF00048; 118; 1
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PENG Q., ZENG M., BHUIYAN Z.A.,
SHIRAZI Y., and characterization
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Q67634;
                                                                                                                                 RIFKEN L., ROOPRA A., SAUNDERS D., SHOWNKED R., SMALDON N., SMITH A., SONNHAMMER E., STADEN R., SULSTON J., THIERRY MIEG J., THOMAS K., VAUDIN M., VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L., WILKINSON-SPROAT J., WOHLDMAN P.;
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01-MAY-1997 (TREMBLREL.
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CODED FOR BY C. ELEGANS
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08, LAST ANNOTATION UPDATE)
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ld cells transformed
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2; Mismat
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. 4.36e+00;
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4.36e+00;
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LU C.L., ERICKSON H.P.;
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EMBL; U65939; G1518098; -
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STRAIN-BRISTOL N2;
WATERSTON R.;
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EMBL; U88173; G1825643; -
SEQUENCE 1224 AA; 1397
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3; Mismatches 4
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RR P-PSDB; R06398.

RR P-PSDB; R06398.

Thuman monocyte chemotactic factor type polypeptide and DNA encoding it - useful as antibacterial and antitumour agents. Sclaim 2; Page 25; 27pp; English.

SClaim 2; Page 25; 27pp; English.

Chriee recombinant plasmids, pHMCF7, pHMCF25 and pHMCF29 which three recombinant plasmids, pHMCF7, pHMCF25 and pHMCF29 which the resolated from a cDNA library prepd. from RNA extracted from thuman promyelocytic leukaemia cell line, HI-60 (ATCC CCL-240).

Chuman promyelocytic leukaemia cell line, HI-60 (ATCC CCL-240).

C vectors. In plasmids pHMCF7 and pHMCF29 bases 105 and 226 were T and G resp; in pHMCF25 they were C and A resp. The AA at posn. C fof the precursor protein is therefore not determined and may be either Ala or Thr. The protein may be produced by recombinant C DNA techniques in E.coli, and is useful as a drug for treatment of c certain bacterial infectons and cancers.
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lung disease.
Homo sapiens.
CA2152141 A.
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19-JUN-1995; 152141.
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02-JAN-1990; J000004.
01-JAN-1989; JP-000065.
03-FEB-1989; JP-026438.
(USDC ) US SEC OF COMMERCE.
Furutani Y, Fukui T, Junichi Y, Masaaki Y, Matsushima
                                                                                                            Monocyte chemoattractant protein analogue MCP-1 (10-76). Truncated monocyte chemoattractant protein-1; inhibitor; receptor binding; anti inflammatory; basophil; lymphocyte; chronic inflammatory disease; arthritis; arteriosclerosis;
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Human beta-chemokine
Novel murine CX3C 395
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                                                                                                                                          In anti-inflammatory agent

So Disclosure; Page 5; 27pp; English.

The present sequence represents an analogue, MCP-1 (11-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the Chemoattractant protein-1 (MCP-1). The analogue, which lacks the Chemoattractant protein-1 (MCP-1). The analogue, which lacks the CP-1 to follogical activity and inhibits binding to a MCP-1 cas it lacks MCP-1 biological activity and inhibits binding to a MCP-1 Creceptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into CC inflammation sites. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung CC diseases. The analogue competes more effectively with MCP-1 for binding CC P-1 receptors than prior art mutant versions of MCP-1 e.g. preferably control of the competes more effectively with MCP-1 e.g. preferably control of the competes more effectively with mCP-1 e.g. preferably control of the competes more effectively with MCP-1 e.g. preferably control of the competes more effectively with mCP-1 e.g. preferably control of the competes more effectively with mCP-1 e.g. preferably control of the competes more effectively with mCP-1 e.g. preferably control of the competes more effectively with mCP-1 e.g. preferably control of the competes more effectively with mCP-1 e.g. preferably control of the competes more effectively with mCP-1 e.g. preferably control of the competes more effectively with mCP-1 e.g. preferably control of the competes more effectively with mCP-1 e.g. preferably control of the competes more effectively with mCP-1 e.g. preferably control of the competes more effectively with mCP-1 e.g. preferably control of the competes more effectively with mCP-1 e.g. preferably control of the competes more effectively with mCP-1 e.g. preferably control of the competes more effectively experience contr
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Query Match
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W13599;
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19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
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CA2152141-A.
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Claim 7; Page 5; 27pp; English.
CC The present sequence represents an analogue, MCP-1 (9-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the CC N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1
CC as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
CC receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared contended to the prior art mutant versions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared contended to the prior art mutant versions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared contended to the prior art mutant 7ND.
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                                               disulfide_bond 4..29
disulfide_bond 5..45
WO9513295-A1.
18-MAY-1995.
07-NOV-1994; U12874.
12-NOV-1993; US-152301.
(DAND ) DANA FARBER CANCER II
ROllins B, Zhang YJ;
WPI; 95-215051/28.
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R87678 standard; protein; 69
R87678;
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Human monocyte chemo-attractant protein-1 (MCP-1) derivs. capable of inhibiting the monocyte chemo-attractant activ endogenous MCP-1 and can be used to treat restenosis
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19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
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been deleted between these residues"
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                        W09374 standard; Protein; W09374; 21-MAR-1997 (first entry)
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Claim 5; Page 5; 27pp; English.
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W13596;
07-NOV-1997 (first entry)
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19-JUN-1995;
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1 EICLDPKQKWIQ
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31-JAN-1989; US-304234.
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22-OCT-1992; 965678.
22-OCT-1992; US-965678.
27-MAY-1994; US-250958.
(UNMI) UNIV MICHIGAN.
Kunkel SL, Lyle LR, St.
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Disclosure; Column 13-14; 16pp; English.

This is the amino acid sequence of the human monocyte chemoattractant protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent stimulator of monocyte chemotaxis and is produced by injured vascular smooth cells thus attracting monocytes and macrophages which infiltrate the injured area and release growth factor. This causes proliferation of the vascular smooth cells resulting in restenosis. The gene sequence can be used to generate antisense sequences e.g. T4803-7, which can be used to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or macrophages, or smooth muscle cells, esp. in order to prevent vascular restenosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-JAN-1990 (first entry)
Peptide from human glioma cell line U-105MG
Glioma; leucocyte; chemotaxis; neoplasms.
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                                                                                     Sequence
                                                                                                                                                  Disclosure;
                                                                                                                                                                                             New peptide with specific chemotactic a
from glioma or leucocyte cells, useful
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/note= "pyrogl
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis Claim 3; Page 11; 22pp; English.

Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of anino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R53398
R53398;
                                                                                                                                                                                                                                                                                                                                   Antisense; RNA; DNA; monocyte chemotactic radionuclide; vascular restenosis; alpha; diagnosis; monocytes; vascular injury.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (DAND ) DANA FARBER CANCER Rollins B, Zhang YJ; WPI; 95-215051/28.
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07-NOV-1994; U12874.
12-NOV-1993; US-152301
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monocyte chemoattractant protein; MCP-1; mutant; restenosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989. The peptides can be used to prevent restenosis, e.g. in patients
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               disulfide_bond
WO9513295-A1.
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Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and peptide(s) - is used for inhibiting, treating or imaging areas of
                                                  WPI; 94-151314/18.
                                                                                Lyle
                                                                                                                                                                                                          WO9409128-A.
                                                                                                                                                                                                                                                                misc_difference
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Sequence 76 AA;
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21-FEB-1996
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llarity 83.3%;
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12..52
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                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                  /note= "Unspecified amino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Protein;
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3.92e-02;
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                                                                                                                                                                                                                                                                                                                                                                protein-1; MCP-1;
beta; emitting is
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CC Ctaim 5; Page 12; 22pp; English.

CC Ctaim 5; Page 13; 22pp; English.

CC Ctaim 5; Page 14; 22pp; English.

CC Ctaim 5; Page 16; 22pp; Page 16; 22pp;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-MAY-1995.
07-NOV-1994; U12874.
12-NOV-1993; US-152301.
(DAND ) DANA FARBER CANCER INST INC.
ROllins B, Zhang YJ;
WPI; 95-215051/28.
R28660 standard; Protein; 76
R28660;
24-MAR-1993 (first entry)
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monocyte chemoattractant protein; MCP-1; mutant; restenosis;
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R87676;
21-FEB-1996 (fi
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The sequences given in R53398-99 represent sense and antisense
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Similarity 83.3%;
10; Conservative
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                                                                                                                                                                                                                                                                                                                                                                       88; DB 14;
No. 3.92e-02;
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----hes 1;
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RESULT ACCOUNTS TO SEE 12 OF SEE 12 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are grapable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1, and can be used to treat restenosis? Claim 6; Page 11; 22pp; English.

C. Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. preferred mutations are: (1) substitution of 28-Tyr by asspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.

The peptides can be used to prevent restenosis, e.g. in patients
                                                      Query Match
Best Local Similarity
Matches 10; Conser
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Best Local
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RBS; promoter; tryptophan; r
Synthetic.
W09219737-A.
12-NOV-1992.
27-APR-1992; J00550.
09-MAY-1991; JP-135950.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (DAIN ) DAINIPPON PHARM CO LTD.
Fukui T, Matsuo N, Yamada M, Yamagishi J;
WPI; 92-398664/48.
N-PSDB; Q30745-46.
N-PSDB; Q30745-46.
Prodn. of polypeptide(s) having monocyte chemotactic using expression plasmids with E. coli elements and s E.coli strains
E.coli strains
Claim 1; Page 48 + Page 36; 56pp; English.
Claim 1; Page 48 + Page 36; 56pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R87677
R87677;
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An expression plasmid, pHw483; for producing MCF(76) consisting of 76 amino acids was constructed. The prod. can be used for e.g. treating bacterial infectious diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (DAND ) DANA FARBER C ROLLINS B, Zhang YJ; WPI; 95-215051/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-NOV-1994;
12-NOV-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                W09513295-A1
18-MAY-1995.
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                                                                                                                                                                                   undergoing
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50 eicadpkqkwvq
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Similarity 83.3%;
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76 AA;
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US-152301.
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11..36
12..52
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  51
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                                                                            87.1%;
83.3%;
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Pred. No.
                                                                            Score 88; DB 14;
Pred. No. 3.92e-02;
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                                                                                                      Length 76;
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Best Local S
Matches 1
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W09507710-A1.
23-MAR-1995.
13-SEP-1994; J01512.
13-SEP-1993; JP-227385.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-FEB-1997,
05-OCT-1992; 956862.
05-OCT-1992; US-956863.
05-OCT-1992; US-956862.
29-APR-1994; US-235659.
                                                                    Radio:labelling neutrophil-activating peptide(s) - for imaging targetted delivery of radioactive agent Example 10; Column 19-20; 15pp; English.

Will31 represents mature human monocyte chemoattractant protein-1 (MCP-1). MCP-1 was radionuclide labelled and used in a method for imaging a target site in vivo in an animal Labelled MCP-1 was allowed to accumulate at a target site (having MCP-1 receptors) in the animal and detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys chemokine carrying either iodine-123 or iodine-131 can be used in the method. Especially preferred is neutrophil activating peptide-2 (NAP-2) which recognises interleukin-8 receptors and is labelled with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                UT 15
Will31 standard; protein; 76 AA.
Will31;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wound treatment using monocyte chemotactic factor - has potent therapeutic effect on skin wounds and ulcers Disclosure; Page 12; 22pp; Japanese.

The invention relates to a new remedy for curing wounds which, instead of comprising a growth factor, comprises a monocyte chemotactic activating factor (MCAF) or its variants or derivatives. The factor has potent effect on skin wounds and ulcers. The present sequence is human MCAF, the activity of which is exemplified as the new remedy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (TORA) TORAY IND INC. Matsushima K, Naruto M; WPI; 95-131181/17.
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25-FEB-1997.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (MLCW ) MALLINCKRODT MEDICAL INC. (UNMI ) UNIV MICHIGAN.
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Local Similarity 83.3%;
hes 10; Conservative
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                                         copper-62, rhenium-186 or rhenium-188.
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Pred. No. 3.92e-02;
1; Mismatches 1
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factor; MCAF; wound remedy.
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Statistics place its the mature form of monocyte chemotactic protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of C protein-1 (MCP-1). MCP-1 is a member of the "C-C" family of C chemoattractant cytokines or chemokines. It is a potent stimulator CC of monocyte chemotaxis and has an extemely high degree of specificity CC for this cell type. MCP-1 is produced by injured vascular smooth muscle CC cells and attracts the monocytes and macrophages which infiltrate the CC area, releasing growth factors and resulting in proliferation of vascular smooth muscle and restenosis. Nucleic acid molecules which are antisense to the MCP-1 mRNA may be used to inhibit translation of MCP-1 and so may be useful for inhibiting vascular restenosis, partic. following balloon CC angioplasty or a related process. The molecule may be radiolabelled to increase its therapeutic effect or for imaging areas of potential
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Best Local :
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Best Local Similarity 83.3%;
Matches 10; Conservative
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06-APR-1995.
28-SEP-1994;
28-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Antisense; monocyte chemotactic protein-1; MCP-1; "C-C" family; chemoattractant cytokine; chemokine; stimulation; monocyte; chemotaxis; vascular smooth muscle cell; macrophage; proliferation; restenosis; balloon angioplasty.
                                                                                                                                                                                                                                           Human monocyte chemoattractant factor hMCP-1; chemokine; Human monocyte chemoattractant factor; hMCP-1; chemokine; meningitis related homologous antigenic sequence; MRHAS; Immunoassay; diagnosis; treatment; prophylactic; bacterial
                                                                                                                                                                                                                                                                                                                                                                                                  R73914;
05-DEC-1995 (first entry)
                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                             viral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R73914 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                restenosis.
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New anti:sense oligo:nucleotide(s) restenosis - are directed against monocyte chemotactic protein, opt.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; T03528.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
WO9519167-A1.
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R86859 standard; Protein;
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                                                                                                                        WO9509232-A.
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14-JAN-1994; US-182917.
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||| ||||||||
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    CA0516.
US-127499
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83.3%;
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Pred. No. 3.92e-02;
1; Mismatches 1
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Pred. No. 3.92e-02;
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C-C family cytokine(s) such a
radio:labelled for therapy or
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CC R73914 is the chemokine Human monocyte chemoattractant factor hMCP-1. CC It contains the meningitis related antigenic sequences (MRHAS) claimed in R73895 and R73907, which are recognised by a monoclonal antibody from the hybridoma Rubella virus (RV)-1. The claimed MRHAS peptides may be used in immunoassays to diagnose the presence of bacterial cand/or viral meningitis agents in a sample, or in prophylactic and therapeutic meningitis treatments. The peptides may also be used as concines against meningitis.

CC NB: Identified by matching corresponding MRHAS peptides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 1
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Best Local Similarity
Matches 10; Conser
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26-JUL-1994; U08207.
29-JUL-1993; US-099866.
13-OCT-1993; US-136117.
(UPJO) UPJOHN CO.
HOGYWERF AJ, Ledbetter S
WPI; 95-082239/11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Screening for cpds. with anti-heparanase activity - by detecting inhibition of heparin or heparan sulphate degradation, potentially useful for treating arthritis, restencis, cancer. Claim 13; Page 49; 60pp; English.

Purified heparanases, prepared under reducing conditions and activated with transglutaminase, are given in R70786-804. Most are prepared by reverse transcription of mRNA from activated human leukocytes, then cloning of the cDNA into pVL1392 baculovirus vector, and expression in Sf9 cells in the presence of reduced glutathione and dithiothreitol.

Sequence 99 AA;
25-JUL-1989 (first entry)
Human monocyte chemo-attractant peptide-1.
Human monocyte chemo-attractant peptide; inflammatory disease; neoplasms
                                                                                                 T 19
P95387 standard; protein; 99 AA.
P95387;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
WO9504158-A.
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MCP-1; chemoattractant; heparanase; heparin; heparan sulfate; arthritis; restenosis; cancer; wound healing.
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N-PSDB; Q85370.
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(VALS/) VAN ALSTYNE
Sharma LR, Van Alst
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Local Similarity 83.3%;
nes 10; Conservative
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larity 83.3%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                    Score 88; DB 13;
Pred. No. 3.92e-02;
1; Mismatches 1
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Pred. No. 3.92e-02;
1; Mismatches 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PA (DAIN) DAINIPPON PHARM CO LTD.

Fukui T, Matsuo N, Yamada M, Yamagishi J;

R WPI; 92-39884/48.

Prodn. of polypeptide(s) having monocyte chemotactic activity - using expression plasmids with E. coli elements and specific E. coli strains

Disclosure; Page 43-44; 56pp; English.

C An expression plasmid, pHMCO76 for producing MCF(76) consisting cof 76 amino acids was constructed. DNA encoding MCF(76) was prepd. using a recombinant plasmid pHMCF7.

Q Sequence 99 AA;
                                                  Query Match
Best Local S
Matches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human derived monocyte chemo-attractant peptide prods. - obtd. from human glioma cell line U-105MG or peripheral blood mononuclear leukocytes. Disclosure; fig 2; 66pp; English.

This is a human-derived monoyte chemo-attractant peptide (MCP-1) sequence MCP-1 exhibits optimal chemotactic activity at a concn. of 1nM and has a mol. mass of c.a. 8,400 D. MCP-1 can be used for treating infection eg inflammatory disease, or for the control of neoplasms by accumulation of monocytes at the site of the infection. The corresp. DNA is obtd. by chemical synthesis, by screening reverse trascripts of mRNA from purified blood leukocytes or cell cultures of eg U-373 MG or KMG-5.
                                                                                                                                                                                                                                                                   12-NOV-1992.
27-APR-1992; J00550.
09-MAY-1991; JP-135950.
                                                                                                                                                                                                                                                                                                                                                                                                         RBS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  MCF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R28663 standard; Protein; R28663;
                                                                                                                                                                                                                                                                                                             W09219737-A.
                                                                                                                                                                                                                                                                                                                                       protein
                                                                                                                                                                                                                                                                                                                                                                                                                   Plasmid; monocyte chemotactic factor; MCF; translation; termination; terminator; initiation; ribosome binding s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-MAR-1989; US-330446.
(USSH) US Dept. Health and Human.
Yoshimura T, Robinson EA, Appella E, Leonard
WPI; 89-300683/41.
                                                                                                                                                                                                                                                                                                                                                                                        Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-MAR-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-PSDB; N91337
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                          73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73 eicadpkqkwvq 84
 ↦
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 EICLDPKQKWIQ 12
               eicadpkqkwvg 84
                                                                                                                                                                                                                                                                                                                                                                                                        promoter;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            h 87.1%;
Similarity 83.3%;
                                                     10;
                                                                 Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                        tryptophan; repressor
                                                                                                                                                                                                                                                                                                                     /label= sig_peptide
24..99
/label= mat_protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers 24..99
/product-MCP-1
                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
 12
                                                             87.1%;
83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99
                                                  Score 88; D
Pred. No. 3.
1; Mismatc
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Pred. No. 3.92e-02;
                                                     Mismatches
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                                                               .92e-02;
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                                                                           Length 99;
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                                                 PT spontaneous rearrangement of intermediate prod.

Example 3; Page 47; 61pp; English.

CC The present peptide, which has an amino-terminal cysteine residue, comparison to a novel synthesis method, comprising the ligation of a cc 1st oligopeptide (OP) to a 2nd OP, end to end, to produce an OP cc product. This comprises mixing the 1st and 2nd OP (which have a cc carboxy-terminal thioester and an amino-terminal cys with an cc unoxidised SH side chain) in a solution containing a catalytic cc thiol, condensing the terminal groups to form an intermediate OP, cc in which components are linked by a beta-aminothioester bond and cc rearranging the bond to give a product OP linked by an amide bond. CC which can be made into native, disulphide containing proteins, cc which can be made into native, disulphide containing proteins by crefolding and oxidisation. The method also combines chemoselective, unprotected, peptide reactions, with native peptide bond formation, cnincreasing the size of protein that can be made by chemical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
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Best Local
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04-MAY-1995; WO-U05668.

04-MAY-1995; WO-U05668.

(SCRI ) SCRIPPS RES INST.

Dawson PE, Kent SBH, Mui

WPI; 96-506095/50.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAY-1992 (first entry)
MAF(44-72) peptide inhibitor of neutrophil activating factor.
bronchitis; neutrophil chemotaxis; ARDS.
Synthetic.
US5079228-A.
07-JAN-1992.
05-FEB-1990; 475658.
05-FEB-1990; US-475658.
(TEXA) UNIV OF TEXAS SYST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthesis of protein by chemical ligation of unprotected peptide(s) by reaction of N-terminal Cys with C-terminal thioester and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic.
WO9634878-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Interleukin-8(34-72) used in novel synthesis method. Thioester; synthesis; ligation; catalysis; thiol; condensation; link; beta-aminothioester; bond; amide; production; disulphide; refolding; oxidisation; interleukin 8; IL-8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAF(44-72) is a preferred peptide derived from NAF which is antagonistic to NAF and has no chemotactic activity. It inhibited NAF-induced migration by 34 per cent. When used with a second preferred peptide, i.e. NAF(3-25) (see R20236) inhibition was 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New peptide inhibitors of neutrophil activating factor - which inhibit chemotaxis, for treating adult respiratory distress syndrome and other inflammatory lesions caused by NAF Claim 8; Column 9; 11pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cohen AB, Miller EJ, Nagao WPI; 92-041038/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R20237 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           W04515 standard; peptide; 39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           per cent.
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larity 66.7%;
Conservative
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. No. 1.05e-01;
Mismatches 0;
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Query Match Best Local Similarity

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Score Pred.

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              (BIOM-) BIOMALE (BIOM-) PARAMETER (BIOM-) PARAME
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03-DEC-1992;
04-DEC-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New interleukin-8 analogues modified in specified region - use neutrophil activators or for blocking effect of IL-8 on neutro for treatment of inflammation claim 23; Page 30; 47pp; English.

The sequence is that of an analogue of interleukin-8 (IL-8) co IL-8 residues 3-69. It is able to bind neutrophils and act as competitive antagonist of IL-8, i.e. it can be used to treat inflammation, e.g. by intravenous injection or oral admin. It act as a neutrophil activator and so can be used to stimulate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-JUN-1993.
03-DEC-1992; CA0528.
04-DEC-1991; US-801578.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Analogues; modified; neutrophil activators; antagonists; human; competitive antagonist; II-8; inflammation; treatment; chemotax activity; stimulation; inflammatory response.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R38086 standard; protein;
R38086;
13-OCT-1993 (first entry)
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R38087 standard;
R38087;
act as a neutrophil activator and inflammatory response. Sequence 67 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic.
W09311159-A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  y match 83.2%;
Local Similarity 66.7%;
hes 8; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard; protein; 67 AA.
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r blocking effect of IL-8 on neutrophil(s)
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Pred.
4; M
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 e 84; DB 7; Len
. No. 1.05e-01;
Mismatches 0;
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ate an
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Matches
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                                                                                                                                                                                                                                                                              10-JUN-1993.
03-DEC-1992;
04-DEC-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        for treatment of inflammation
Claim 17; Page 29; 47pp; English.
The sequence is that of an analogue of interleukin-8 (IL-8) compri
IL-8 residues 5-72. It is able to bind neutrophils and act as a
competitive antagonist of IL-8, i.e. it can be used to treat
inflammation, e.g. by intravenous injection or oral admin. It can
act as a neutrophil activator and so can be used to stimulate an
inflammatory response. It also has strong chemotaxis activity and
can be used to attract neutrophils to a diseased area.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   activity; stimulation; inflammatory response.
Synthetic.
W09311159-A.
10-JUN-1993.
03-DEC-1993; CA0528.
04-DEC-1991; US-801578.
                       for treatment of inflammation
Claim 15; Page 29; 47pp; English.
The sequence is that of an analogue of interleukin-8 (IL-8
IL-8 residues Ile5 (6-72). It is able to bind neutrophils
as a competitive antagonist of IL-8, i.e. it can be used t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Modified human interleukin-8 analogue Ile5 (6-72). Analogues; modified; neutrophil activators; antago competitive antagonist; IL-8; inflammation; treatm
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Analogues; modified; neutrophil activators; antagonists; human; competitive antagonist; II-8; inflammation; treatment; chemotaxis; activitive antagonist; II-8; inflammation; treatment; chemotaxis;
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                                                                                                                                             New interleukin-8 analogues modified in specified region - used neutrophil activators or for blocking effect of IL-8 on neutroph
                                                                                                                                                                                                  04-DEC-1991; US-801578.
(BIOM-) BIOMEDICAL RES CENT Clark-Lewis I, Moser B; WPI; 93-196997/24.
                                                                                                                                                                                                                                                                                                                                                          W09311159-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   activity; stimulation;
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larity 66.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                    /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein; 68 AA.
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  intravenous injection
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. No. 1.05e-01;
Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                response
or oral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          treatment;
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                          used to
                                                                         (IL-8)
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                                               and act
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                            treat
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Best Local S
Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       neutrophil activators ...

for treatment of inflammation
Claim 16; Page 29; 47pp; English.

Claim 16; Page 29; 47pp; English.

The sequence is that of an analogue of interleukin-8 (IL-8) compri
IL-8 residues Gln5 (6-72). It is able to bind neutrophils and act
as a competitive antagonist of IL-8, i.e. it can be used to treat
inflammation, e.g. by intravenous injection or oral admin. It can
inflammation, e.g. by intravenous injection or oral admin. It can
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R38084;
R38084;
13-OCT-1993 (fir
10-JUN-1993.

03-DEC-1991; US-801578.

04-DEC-1991; US-801578.

(BIOM-) BIOMEDICAL RES CENT LTD.

Clark-Lewis I, Moser B;

MPI; 93-196997/24.

New interleukin-8 analogues modified in specified region - used as neutrophil activators or for blocking effect of IL-8 on neutrophil for treatment of inflammation for treatment of inflammation claim 9; Page 29; 47pp; English.
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03-DEC-1992;
04-DEC-1991;
                                                                                                                                                                                                                                                                                                                                                                  activity; stimulation; inflammatory response. Synthetic. W09311159-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13-CCT-1993 (first entry)
Modified human interleukin-8 analogue (4-72).
Analogues; modified; neutrophil activators; antagonists; competitive antagonist; II-8; inflammation; treatment; c)
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New interleukin-8 analogues modified in specified region - used as neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
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(BIOM-) BIOMEDICAL RES
Clark-Lewis I, Moser B;
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R38081;
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Analogues; modified; neutrophil activators; antagonists; human; competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
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Homo sapiens.
W09731098-A1.
28-AUG-1997.
                                                                                                                                                                            19-MAR-1998 (first entry)

Drol3+ chemokine beta10 or monocyte chemotactic protein 4 variant. Human; chemokine beta10; Ck beta10; treatment; antagonist; solid tumour; infection; autoimmune disease; asthma; antibody; fibrotic disease; psoriasis; neurodegenerative disease; wound healing; haematopoiesis regulation; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         act as a neuror
inflammatory response.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New interleukin-8 analogues modified in specified region - used as neutrophil activators or for blocking effect of IL-8 on neutrophil(s) for treatment of inflammation Claim 10; Page 29; 47pp; English.

The sequence is that of an analogue of interleukin-8 (IL-8) comprising IL-8 residues Ala4Ala5 (6-72). It is able to bind neutrophils and act as a competitive antagonist of II-8, i.e. it can be used to treat inflammation, e.g. by intravenous injection or oral admin. It can act as a neutrophil activator and so can be used to stimulate an
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03-DEC-1992; CA0528.
04-DEC-1991; US-801578.
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WPI; 93-196997/24.
                                                                                                                        chromosome identification; monocyte chemotactic protein
leukaemia; MCP-4; Drol3+ variant.
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Example 12; Fig 5; 81pp; English.

Example 12; Fig 5; English.

Example 12; Fig 6; En
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Best Local
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Adams M. Alderson R. Applebaum
Parmelee D. White J;
WPI: 97-435153/40.
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23-FEB-1996; WO-U02598
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Pred. No. 1.05e-01;
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Search completed: Thu Apr 1 07:46:32 1999 Job time: 30 secs.

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Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

MPsrch\_pp protein - protein database search, using Smith-Waterman algorithm

Tabular output not generated. Run on: Thu Apr 1 07:45:27 1999; MasPar time 3.43 Seconds 131.151 Million cell updates/sec

Title:

Description: Perfect Score: Sequence: Scoring table: PAM 150 Gap 15 >US-08-927-939-14 (1-12) from US08927939.pep 101 1 EICLDPKQKWIQ 12

Searched: 116738 segs, 37463448 residues

Post-processing: Minimum Match 0% Listing first 100 summaries

Database: pir58 1:pir1 2:pir2 3:pir3 4:pir4

Statistics: Mean 25.334; Variance 37.630; scale 0.673

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result	Score	% Query Match	Length	B B	ij	Description	Pred. No.
1	93	92.1	95	2	JN0841	interleukin-8 - dog	2.88e-07
2	93	92.1	101	N	S42496	•	N
ω	93	92.1	101	N	I46997	-8	N
4	93	92.1	103	N	A53096	-8 pr	
<sub>5</sub>	93	92.1	103	N	A44253	0	
ω.	90	89.1	101	2	146871	interleukin-8 - rabbi	
7	88	87.1	99	Ν	A60299	oat	
8	87	86.1	99	N	JC2136	monocyte chemoattract	5.73e-06
9	84	83.2	99	N	A37034 .	interleukin-8 precurs	
10	84	٠	101	N	148148	Neutrophil attractant	
11	83	82.2	99	N	A39296	monocyte chemoattract	
12	83	٠	99	N	JC2336		4.05e-05
13	82	•	125	N	I46857	monocyte chemoattract	6.56e-05
14	81	•	109	N	A54678		1.06e-04
15	80	79.2	89	N	A53497	pre-B-cell growth-sti	1.71e-04
16	80	٠	89	ν	153416	interleukin-8 homolog	1.71e-04
17	80	٠	93	N	G01540		1.71e-04
18	80	•	93	N	181182	cytokine - mouse	1.71e-04
19	79	78.2	99	N	JC2417	monocyte chemoattract	2.76e-04
20	79	78.2	120	N	148147		2.76e-04
21	77	•	97	N	JC4912	eotaxin - human	
22	75	74.3	. 96	N	I48099	eotaxin precursor - q	1.81e-03
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.FICATION #superfamily beta-thromboglobulin
.Y #length 101 #molecular-weight 11292 #checks
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Cordler, G.
submitted to the EMBL Data Library, March 1994
Nucleotide sequence of ovine interleukin 8 cDNA using
polymerase chain reaction.
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#superfamily beta-thromboglobulin
#length 95 #molecular-weight 10611
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Cloning of a canine gene
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#common_name domestic sheep .
06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
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#formal_name Canis lupus familiaris #common_name dog
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#authors Seow, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G.
#journal Immunol. Cell Biol. (1994) 72:398-405
#title Cloning, sequencing, expression and inflammatory activity
#title skin of ovine interleukin-8.
#cross-references_MTID:95137691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ##residues 1-103 ##label LIN
##cross-references GB:M86923; NID:g164520; PID:g164521
#FICATION #superfamily beta-thromboglobulin
#Y #length 103 #molecular-weight 11633 #checksum
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Local Similarity 75.0%;
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alveolar macrophage chemotactic factor-I (AMCF-I)
interleukin-8 homolog - pig
#formal_name Sus scrofa domestica #common_name domestic
30-Apr-1993 *sequence_revision 18-Nov-1994 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch, M.J.; Weiss, D.J.; Murtaugh, M.P.
J. Biol. Chem. (1944) 269:17-85
Regulation of interleukin-8 expression in porcine alveolar macrophages by bacterial lipopolysaccharide.
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Goodman, R.B.; Foster, D.C.; Mathewes, S
Kuljper, J.L.; Forstrom, J.W.; Martin,
Biochemistry (1992) 31:10483-10490
Molecular cloning of porcine alveolar may
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#formal_name Ovis sp. #common_n
21-reb-1997 #sequence_revision
09-May-1997
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3; Mismatches (
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#title Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and their expression in spleen cells.
#cross-references MUID:91225489
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#accession S13052
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##residues 23-33,'X',35,'X',37-46,'X',48-49,'I',51-53 ##label BEA
#FICATION #superfamily beta-thromboglobulin
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##residues 1-103 ##label GOO
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                            A60299 #type complete monocyte chemoattractant protein 1 precursor - human GDCF-1; glioma-derived monocyte chemotactic factor 1; MCAF;
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A novel neutrophil chemoattractant generated during an inflammatory reaction in the rabbit peritoneal cavity in vivo. Purification, partial amino acid sequence and structural relationship to interleukin 8.
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MCP-1; monocyte chemotactic factor 1;
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Pred. No. 1.30e-06
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##molecule_type mRNA
##residues 1-99 ##label YO2
##cross-references GB:S71513; NID:g240867; PID:g240868
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#journal
#authors Furutani, Y.; Nomura, H.; Notake, M.; Oyamada, Y.; Fukui, Yamada, M.; Larsen, C.G.; Oppenheim, J.J.; Matsushima, I #journal Biochem. Biophys. Res. Commun. 2014 59 159:249-255
Cloning and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCAF).
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#Journal Adv. Exp. Med. Biol. (1991) 305:47-56
#title Human monocyte chemoattractant protein-1 (MCP-1).
#cross-references_MUID:92095166
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##residues 1-99 ##label SHY
##cross-references GB:M37719; NID:g187447; PID:g487124
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##residues 1-99 ##label ROL
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##cross-references GB:X14768; NID:g34513; PID:g34514
##experimental_source glioma cell line U-105MG
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FEBS Lett. (1989) 244:487-493
Human monocyte chemoattractant protein-1 (MCP-1). Full-
cDNA cloning, expression in mitogen-stimulated blood
mononuclear leukocytes, and sequence similarity to me
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The human homolog of the JE gene encodes a monocyte secretory
                                                                                                                                                                                                                                                                                                             Int. J. Cancer (1990) 45:795-797
A Chemoattractant expressed in human sarcoma cells
(tumor-derived chemotactic factor, TDCF) is identical to
monocyte chemoattractant protein-1/monocyte chemotactic and
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glioma-derived chemotactic factor 2 (GDCF-2)
#formal_name Homo saptens #common_name man
20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change
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                                                                                                                                                                                                                                                                                     activating factor (MCP-1/MCAF).
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#map_position 17q11.2-17q12
CLASSIFICATION #superfamily macrophage inflamm
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#journal Mol. Cell. Biochem. (1993) 126:61-68

#title The expression of monocyte chemotactic protein (MCP-1) in human vascular endothelium in vitro and in vivo.

#cross-references MUID:94150478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   #journal Biochem. Biophys. Res. Commun. (1990) 167:904-909
#title Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel N-terminally processed form.
#cross-references_MUID:90211336
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##molecule_type mRNI
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                                                                                                             Local Similarity
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EICLDPKQKWIQ 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JC1096
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#product monocyte chemoattractant protein 1, short form #status experimental #label MAT2\
#modified_site pyrrolidone carboxylic acid (Gln) (in mature form) #status experimental\
#binding_site carbohydrate (Asn) (covalent) #status
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83.3%;
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                                                                                                           Score 88; DB 2;
Pred. No. 3.50e-06
                                                                                          Mismatches
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#accession A37034
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                                                                               ##residues 1-99 ##label MUK
##cross-references GB:M28130; NID:g186367; PID:g186368
##note the authors failed to translate the last thirty-six
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##cross-references EMBL:X79416; NID:g872312; PID:g872313
#ID:GRION #superfamily macrophage inflammatory protein
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interlewin-8 precursor - human
beta-thromboglobulin-like protein; fibroblast-derived
neutrophil-activating factor alpha; lung carcinoma-derived
chemotaxin; lymphocyte-derived neutrophil-activating
factor; monocyte-derived neutrophil chemotactic factor;
monocyte-derived neutrophil-activating factor
#formal_name Homo sapiens #common_name man
08-Dec-1992 #sequence_revision 08-Dec-1992 #text_change
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submitted to the EMBL Data Library, July 1994
S57498
                                                                                                                                                                                                       Mukaida, N.; Shiroo, M.; Matsushima, K.
J. Immunol. (1989) 143:1366-1371
Genomic structure of the human monocyte-derived
chemotactic factor IL-8.
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A37034; JL0041; A32791; S37634; PL0107; A28598; A27488;
A39960; A60401; A60591; S15827; S04216; A60567; A60847;
S15417; S03975; I54560; I55992; I37902; S67519
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Scheit, K.H.
Blochem. Blophys. Res. Commun. (1994) 199:962-968
Porcine luteal cells express monocyte chemoattractant protein-1 (MCP-1): Analysis by polymerase chain reaction
Matsushima, K.; Morishita, K.; Yoshimura, T.; Lavu, S.; Kobayashi, Y.; Lew, W.; Appella, E.; Kung, H.F.; Leonard,
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#product monocyte chemoattractant protein-1 #status
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#binding_site carbohydrate (Asn) (covalent) #status
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#journal J. Exp. Med. (1989) 169:1895-1901

#title Purification and partial primary sequence of a chemotactic protein for polymorphonuclear leukocytes derived from human lung giant cell carcinoma LU65C cells.

#cross-references MUID:89279141
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Fauthors Kowalski, J.; Denhardt, D.T.
Fauthors Kowalski, J.; Denhardt, D.T.
Fournal Mol. Cell. Biol. (1989) 9:1946-1957
Fittle Regulation of the mRNA for monocyte-derived
neutrophil-activating peptide in differentiating HL60
promyelocytes.
Fcross-references MUID:89313739
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##residues 1-99 ##label MAI
##coss-references EMBL:Y00787; NID:g34518; PID:g34519
##note

##note

the sequence shows similarity to several
platelet-derived factors, a v-src-induced protein,
growth-regulated gene product (gro), and an
IFN-gamma-inducible protein
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Biochem. Biophys. Res. Commun. (1988) 151:883-890
Structure determination of a human lymphocyte derived neutrophil activating peptide (LYNAP).
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J. Exp. Med. (1988) 167:1883-1893

Molecular cloning of a human monocyte-derived neutrophil chemotactic factor (MDNCF) and the induction of MDNCF mRNA by interleukin 1 and tumor necrosis factor.
                                                Yoshimura, T.; Matsushima, K.; Tanaka, S.; Robinson, Appelia, E.; Oppenheim, J.J.; Leonard, E.J. Proc. Natl. Acad. Sci. U.S.A. (1987) 84:9233-9237 Purification of a human monocyte-derived neutrophill chemotactic factor that has peptide sequence simil other host defense cytokines.
                                                                                                                                                                                                                                                                                                                                                                    Walz, A.; Peveri, P.; Aschauer, H.; Baggiolini, M. Biochem. Biophys. Res. Commun. (1987) 149:755-761 Purification and amino acid sequencing of NAF, a novel neutrophil activating factor produced by monocytes.
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##residues 23-32 ##label SCH

##experimental_source dermal fibroblasts

##note a minor component of this material (15%) includes an

##note a minor component of this material (15%) includes an
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##residues 28-47 ##label VA3
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##residues 21-33,'X',35,'X',37-47 ##label YO2
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23-33,'x',35,'x',37-42 ##label VAN
Car, B.D.; Baggiolini, M.; Walz, A. Biochem. J. (1991) 275:581-584 Formation of neutrophil-activating peptide 2
                                                                                                                                              granulocytosis-promoting A60847
                                                                                                                                                                                        Van Damme, J.; Van Beeumen, J.; Opdenakker, G.; Billiau, A. J. Exp. Med. (1988) 167:1364-1376
A novel, NH-2-terminal sequence-characterized human monokine possessing neutrophil chemotactic, skin-reactive, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Yoshimura, T.; Robinson, E.A.; Appella, E.; Matsushima, K.; Showalter, S.D.; Skeel, A.; Leonard, E.J. Mol. Immunol. (1989) 26:87-93

Three forms of monocyte-derived neutrophil chemotactic factor (MDNCF) distinguished by different lengths of the
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Purification of granulocyte chemotactic peptide/interleukin-8
reveals N-terminal sequence heterogeneity similar to that
of beta-thromboglobulin.
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Generation of interleukin-8 by plasmin from AVLPR-interleukin-8, the human fibroblast-derived neutrophil chemotactic factor.
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Opdenakker, G.; Billiau, A.
Eur. J. Immunol. (1989) 19:1189-1194
The chemotactic activity for granulocytes produced by virally infected fibroblasts is identical to monocyte-derived
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IL-lalpha or tumor necrosis factor-alpha stimulate release
three NAP-1/IL-8-related neutrophil chemotactic proteins
human dermal fibroblasts.
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K.; Mizumo, S.; Suzuki, K.
#journal Immunol. Lett. (1990) 24:165-170
Coding region structure of interleukin-8 gene of human lung
giant cell carcinoma LU65C cells that produce
LUCT/interliukin-8: homogeneity in interleuki-8 genes.
#cross-references MUID:90346419
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1 EICLDPKQKWIQ 12
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                                                                                                                                                                                                                 #superfamily #length 101
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J. Immunol. (1993) 151:6225-6236
CDNA cloning and expression of guinea
attractant protein-1 (NAP-1): NAP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Neutrophil attractant protein-1 - guinea pig #formal_name Cavia porcellus #common_name guinea pig 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 23-Feb-1997
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Pred. No. 2.49e-05;
3; Mismatches 1
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Pred. No. 2.49e-05;
4; Mismatches C
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#journal DNA Cell Biol. (1991) 10:671-679
#title Gene expression and cDNA coloning identified a major basic
protein constituent of bovine seminal plasma as bovine
monocyte-chemoattractant protein-1 (MCP-1).
#cross-references_MUID:92096117
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##residues 50-68,'X',70-74,'X',76 ##label WE2
##experimental_source seminal vesicle
##experimental_source seminal vesicle
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##residues 1-99 ##label WEM
##cross-references GB:M84602; GB:M85264; NID:g163394; PID:g163395
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##residues 1-99 ##label WEM
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Local Similarity 75.0%;
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Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
Characterization of the bovine monocyte chemoattract
protein-1 gene.
JC2336
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26/1;
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#length 99 #molecular-weight 11114 #checksum
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#product monocyte chemoattractant protein 1 #status
predicted #label MAT\
#binding_site carbohydrate (Asn) (covalent) #status
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chemoattractant protein-1 -
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Pred. No. 4.05e-05;
2; Mismatches 1
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Pred. No. 4.05e-05;
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#accession 146857
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                                                               ##residues 1-109 ##label MIN
##cross-references EMBL:X71087; NID:g288396; PID:g288397
This protein induces proteinase secretion and chemo
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##cross-references GB:X72309
!NCE TOTATO
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##cross-references GDB:138473; OMI
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                                                     macrophages and monocytes.
                                                                                                                                                          Minty, A.; Chalon, P.; Guillemot, J.C.; Kaghad, M.; Liauzun, P.; Magazin, M.; Miloux, B.; Minty, C.; Ramond, P.; Vita, N.; Lupker, J.; Shire, D.; Ferrara, P.; Caput, D. submitted to the EMBL Data Library, March 1993
Molecular cloning of MCP-3: a human monocyte-derived monocyte
                                                                                                                                                                                                                                                                                                       Biochem. Biophys. Res. Commun. (1993) 191:535-542
Human monocyte chemotactic protein-3 (MCP-3): Molecular
cloning of the cDNA and comparison with other chemokines.
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monocyte chemotactic protein 3 precursor -
monocyte chemotactaractant protein MCP-3
#formal_name Homo sapiens #common_name man
28-Oct-1994 #sequence_revision 28-Oct-1994
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                                                                                                                                                                                                                                                                                             cloning of the cDNA and comparison JC1478
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The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome 17q11.2-q12.
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Pred. No. 6.56e-05;
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#title Signal sequence trap: a cloning proteins and type I membrane #cross-references MUID:93342488
#accession 159582
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##residues 1-89 ##label RES
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cytokine
#length 89
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Jiang,
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Pred. No. 1.
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 Kahn,
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RESULT

**UKGANISM** 

REFERENCE ACCESSIONS

REFERENCE

GENETICS

#gene

Λ̈́ 밁 SUMMARY

Matches Best

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#map_position 17q11-17q12
#introns 36/1; 75/2
CLASSIFICATION #superfamily macrophage inflammatory protein KEYWORDS cytokine; glycoprotein; inflammation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ##molecule_type mRNA
##residues 1-89 ##label NAG
##cross-references GB:D21072; NID:g413905; PID:d1005177; PID:g468457
PNCE 159582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nagasawa, T.; Kikutani, H.; Kishimoto, T.
Proc. Natl. Acad. Sci. U.S.A. (1994) 91:2305-2309
Molecular cloning and structure of a pre-B-cell
growth-stimulating factor.
A53497
                                                                                   153416 #type complete
interleukin-8 homolog - mouse
#formal_name Mus sp. #common_name mouse
02-Aug-1996 #sequence_revision 02-Aug-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            pre-B-cell growth-stimulating factor precursor - mouse #formal_name Mus musculus #common_name house mouse 02-Jun-1994 #sequence_revision 02-Jun-1994 #text_change
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product monocyte chemotactic protein 3 #status
predicted #label MAT\
#binding_site carbohydrate (Asn) (covalent) #status
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Pred. No. 1.06e-04;
                                                                                                                                                                                                                                                                                                                                                        DB 2; I
1.71e-04;
S.M.; Tomita,
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Johnson, M.D.;
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                                                                                                     #journal Science (1993) 261:600-603
#title Signal sequence trap: a cloning strategy
proteins and type I membrane proteins.
#cross-references MUID:93342488
#accession I81182
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#title Molecular cloning of TPARI, a gene whose expression is repressed by the tumor promoter 12-0-tetradecanoylphorbol 13-acetate (TPA).
#cross-references_MUID:95073497
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##residues 1-93 ##label |
##cross-references GB:L12030;
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1-93 ##label SPO
##cross-references EMBL:016752; NID:91272194; F
##cross-references EMBL:016752; NID:91272194; F
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Local Similarity 66.7%;
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Similarity 66.7%;
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I59582
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02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change
28_Feb-1997
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G07697
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cytokine SDF-1-beta - human
#formal_name Homo sapiens #common_name man
21_Dec_1996 #sequence_revision 06-Jun-1997 #text_change
 SDF-1-beta
#length 93
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#molecular-weight 10561
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Pred. No. 1.71e-04;
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Best Local Similarity 66.7%;
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#title
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                                                                                                                                                                                                                                                                 #title cDNA cloning of guinea pig monocyte chemoattractant protein-1 and expression of the recombinant protein.
#cross-references_MUID:93267104
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##residues 1.99 ##label HOS
##residues 1.90 ##label HOS
##experimental_source corpus luteum
##CATION #superfamily macrophage inflammatory protein
                                                                                                                                                                                       ##residues 1-120 ##label
##cross-references GB:L04985;
                                                                                                                                                                                                                    ##molecule_type mRNA
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                              71
                                                                             Match 78.2%;
Local Similarity 66.7%;
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Similarity 66.7%;
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monocyte chemoattractant protein-1 - guinea pig
#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
09-May-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 scheit, K.H.
Scheit, K.H.
Biophys. Res. Commun. (1994) 205:148-153
Borchne lutteal cells express monocyte chemoattractant
protein-2 (MCP-2): Analysis by cDNA cloning and northern
                                                                                                                         #superfamily macrophage inflammatory protein
#length 120 #molecular-weight 13741 #check
                                                                                                                                                          MCP-1
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J. Immunol. (1993) 150:5025-5032
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24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change
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monocyte chemoattractant protein-2 -
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#product monocyte chemoattractant protein-2 #status
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                                                            Score 79; DB 2;
Pred. No. 2.76e-04
2; Mismatches
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Pred. No. 2.76e-04;
2; Mismatches 2
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Pred. No. 1.71e-04;
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NID:g349820; PID:g349821
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Best Local Similarity 58.3%;
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#title
                                                                                                                                                                                                                                                                                                                           #title Constitutive and allergen-induced in the guinea pig lung. #cross-references MUID:95173589
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##molecule_type mRNA
##residues 1-97 ##label BAR
##residues EMBL:275668; NID:g1531982; PID:e251275; PID:g1531983
##experimental_source dermal fibroblast
This protein has eosinophil specific chemotatic activity.
IFICATION #superfamily macrophage inflammatory protein
                                                                                                                                                                                                         ##cross-references EMBL:U18941; NID:g687655; PID:g687656
IFICATION #superfamily macrophage inflammatory protein
#length 96 #molecular-weight 10753 #checksum
                                                                                                                                                                                                                                                                           ##molecule_type mRNA
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Local Similarity 72.7%;
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                                                                               ICLDPKQKWIQ 12
JC2478
eotaxin
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eotaxin precursor - gulnea pig
#formal_name Cavia porcellus #common_name gulnea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
09-May-1997
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01-Nov-1996 #sequence_revision 01-Nov-1996
08-Sep-1997
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Pred. No. 1.81e-03;
""smatches 2;
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Pred. No. 7.10e-04
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COMMENT This protein is identified as a potent eosinophil chemoattractant.
CLASSIFICATION #superfamily macrophage inflammatory protein
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##cross-references EMBL:U22414; NID:g790632; PID:g790633
#FIGURATION #superfamily macrophage inflammatory protein
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##residues 1-92
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##residues 1-96 ##label JOS
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Local Similarity 72.7%;
hes 8; Conservative
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Local Similarity 58.3%;
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#type complete
monocyte chemotactic protein-2 - human
#formal_name Homo sapiens #common_name man
02-%ay-1997 #sequence_revision 18-Jul-1997 #to
31-0ct-1997
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macrophage inflammatory protein-lalpha -
#formal_name Rattus norvegicus #common_na
29-May-1998 #sequence_revision 29-May-199
02-Jul-1998
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Biochem. Biophys. Res. Commun. (1994) 205:788-794
Eotaxin: Cloning of an eosinophil chemoattractant cytokine and increased mRNA expression in allergen-challenged
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      152322
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Biochem. Biophys. Res. Commun. (1995) 211:289-295
Molecular cloning and posttranscriptional regulation of macrophage inflammatory protein-1 alpha in alveolar
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21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change
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#product eotaxin #status predicted #label MAT\
#binding_site carbohydrate (Thr) (covalent) #status
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Pred. No.
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Pred. No. 2.88e-03;
3; Mismatches 2
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. No. 1.81e-03;
Mismatches 2;
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29-May-1998 #text_change
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Best Local Similarity 50.0%;
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Best Local
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#accession I50417
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IFICATION #superfamily beta-thromboglobulin
#length 103 #molecular-weight 11090 #checksum
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This protein belongs to the beta-chemokine family which is one of
the major HIV-suppressive factors. It plays roles in autoimmune
processes such as multiple sclerosis and rheumatoid arthritis and
in tumor biology, and contribute to the trafficking and
recuitment of the responsive cells.
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Similarity 58.3%;
7; Conservative
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Constitutive expression of a gene encoding a polypeptide
homologous to biologically active human platelet prote:
Rous sarcoma virus-transformed fibroblasts virus
transformed fibroblasts.
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RSV-induced protein - chicken
#formal_name Gallus gallus #common_name chicken
13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change
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P.; Van Aelst, I.; Van Damme, J.; Opdenakker, G.
Biochem. Biophys. Res. Commun. (1997) 231:726-730
Human monocyte Chemotactic protein-2: cDNA cloning and
regulated expression of mRNA in mesenchymal cells.
                                  #formal_name Gallus gallus #common_name chicken
19-Nov-1988 #sequence_revision 19-Nov-1988 #text_change
                                                                                              A26736 #type complete transformation-induced pro
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#product monocyte chemotactic protein-2 #status
predicted #label MAT
jth 99 #molecular-weight 11246 #checksum 6596
                                                                                                                                                                                                                                                                                                                                                                                                                 1-103 ##label BED
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                                                                                                                                                                                                                                                                          Score 72; DB 2; I
Pred. No. 7.21e-03;
2; Mismatches 3
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#journal Cell (1987) 49:321-328
#title Transformation by Rous sarcoma virus induces a r
with homology to a mitogenic platelet protein
#cross-references MUID:87187628
#accession A26736
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                                                                                                                                                                                                                                                                                                                                                                                           #authors
                                                                                                                                                                                                                                                      ##molecule_type DNA; mRNA
##residues 1-148 ##label
##cross-references GB:J04467;
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##cross-references GB:M16199; NID:g211735; PID:g211736
#FICATION #superfamily beta-thromboglobulin
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##residues
1-148 ##label
##residues
##cross-references GB:M19681;
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Local Similarity 58.3%;
73
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EVCADPKKEWVQ 84
                                                   Similarity
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J. Biol. Chem. (1989) 264-679-682
Platelet-derived growth factor-inducible gene JE is
of a family of small inducible genes related to pl
factor 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rollins, B.J.; Morrison, E.D.; Stiles, C.D. Proc. Natl. Acad. Sci. U.S.A. (1988) 85:3738-3742 Cloning and expression of JE, a gene inducible by platelet-derived growth factor and whose product cytokine-like properties.
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                                                                                                predicted #length 148 #mo
                                                                                                                                                                   cytokine; glycoprotein
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PDGF-inducible JE glycoprotein precursor - mouse
#formal_name Mus musculus #common_name house mouse
01-pec-1989 #sequence_revision 01-pec-1989 #text_change
                                                                                                                                                                                   #superfamily macrophage inflammatory protein
                                                                                                                                                                                                    JE
26/1; 65/2
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#product transformation-induced
predicted #label MAT
#length 103 #molecular-weight 11056
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                                                                                                                                  #binding_site carbohydrate (Asn)
                                               70.3%;
58.3%;
                                                                                                    #molecular-weight 16326
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Pred. No. 7.21e-03;
                                                 Score 71; DB 2; Pred. No. 1.14e-02
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NID:g193486; PID:g387168; GB:M19682
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NID:g193488; PID:g387169
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#contents
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                                                                                                               #authors Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes
are members of a new superfamily that includes leukocyte
and fibroblast-derived inflammatory agents, growth factors,
and indicators of various activation processes.

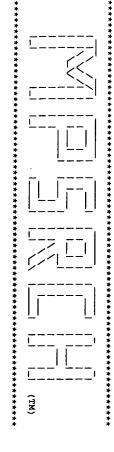
#cross-references_MUID:89093958
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#journal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967
#title cDNA sequence of two inducible T-cell genes.
#cross-references_MUID:89184547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #title Sequence of the murine haemopoietic stem cell inhibitor/macrophage inflammatory protein 1-alpha gene. #cross-references_MUID:91016858
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##residues 1.92 ##label GRO
##coss-references EMBL:X53372; NID:g54062; PID:g297531
##cross-references the authors' translation of the nucleotide sequence
##note differs at several positions from the sequence give
        ##molecule_type mRNA

#residues 1-21,'L',23-61,'A',63-92 ##label BRO

##cross-references GB:M23447; NID:g533240; PID:g5332-
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##cross-references GB:J04491; NID:g201524; PID:g201525
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A53885
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Cloning and characterization of a cDNA for murine macrophage inflammatory protein (MIP), a novel monokine with inflammatory and chemokinetic properties.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermsen, K.; Luedke, C.; Gallegos, C.; Coit, D.; Merryweather, J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermsen, Luedke, C.; Gallegos, C.; Coit, D.; Merryweather, J.;
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17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change
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Nucleic Acids Res. (1990) 18:5561
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Best Local Similarity 50.0%;
Matches 6; Conservative
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D.G.; Nguyen, H.T.; Moldawer, L.L.; Nathan, C.F.; Lowry
S.F.; Cerami, A.
#journal J. Exp. Med. (1988) 167:570-581
#title Macrophages secrete a novel heparin-binding protein with
Inflammatory and neutrophil chemokinetic properties.
#cross-references MUID:88154745
#accession A27596
                   #cross-references MUID:90174947
#accession S07723
                                                                                                                                             #authors
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##molecule_type DNA
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##cross-references GB:M73061; NID:g199694; PID:g199695
This protein is a monokine.
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##residues 24-33,';
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                                                                          Timmers, H.T.M.; Pronk, G.J.; Bos, J.L.; van der Eb, A. Nucleic Acids Res. (1990) 18:23-34
Analysis of the rat JE gene promoter identifies an AP-1 binding site essential for basal expression but not f
                                                                                                                                                                                                  monocyte chemoattractant protein-1
#formal_name Rattus norvegicus #common_name Norway rat
29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change
08-Sep-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     J Immunol. (1991) 146:4031-4040
Genomic structure of murine macrophage inflammatory
protein-1-alpha and conservation of potential regulatory
sequences with a human homolog, LD78.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Widmer, U.; Yang, Z.; van Deventer, Sherry, B.; Cerami, A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   J. Exp. Med. (1988) 168:2251-2259
Resolution of the two components of macrophage inflammatory protein 1, and cloning and characterization of one of those components, macrophage inflammatory protein 1 beta.
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Davatelis, G.; Wolpe, S.D.;
                                                                                                                                                                  S07723; JN0128
S07723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      #domain signal sequence #status predicted #label
#product macrophage inflammatory protein #status
experimental #label MAT
#length 92 #molecular-weight 10345 #checksum 5009
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 67; DB 2; 1
Pred. No. 6.80e-02.
4; Mismatches
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Masiarz, F
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Coit, D.; C
                                                                                                                                          der Eb, A.J.
                                                                               but not for TPA
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C.F.; Lowry,
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GENETICS
#INTRONS
CLASSIFICATION
FEATURE
1-23
24-148
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#authors
#journal
#title
Search completed: Thu Apr 1 07:45:44 1999 Job time: 17 secs.
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                                                                                                                                                                                                                                                                                                 SUMMARY
                                                                                                                                                                                            Query Match 66.3%; Score 67; DB 2; Length 148; Best Local Similarity 58.3%; Pred. No. 6.80e-02; Matches 7; Conservative 2; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         #authors Yoshimura, T.; Takeya, M.; Takahashi, K.
#journal Biochem. Biophys. Res. Commun. (1991) 174:504-509
Biochem. Biophys. Res. Commun. (1991) 174:504-509
WcCP-1) and its expression in rat spleen cells and tumor.
cell lines.
#cross-references MUID:91128376
#accession JN0128
#accession JN0128
##molecule_type mRNA
##residues_ 1-148 ##label YOS
##cross-references GB:M57441; NID:9205333; PID:9205334
##experimental_source spleen cells
the authors translated the codon GAA for residue 62 as
Lys and GCT for residue 63 as Leu
                                                                                             73 EICADPNKEWVQ 84
||| ||: |:|
1 EICLDPKQKWIQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ##residues 1-148 ##label TIM ##cross-references EMBL:X17053; NID:g55530; PID:g55531
                                                                                                                                                                                                                                                                                          #domain signal sequence #status predicted #label SIG\
#product immediate-early serum-responsive protein JE
#status predicted #label MAT
#length 148 #molecular-weight 16460 #checksum 4876
                                                                                                                                                                                                                                                                                                                                                                                                              26/1; 65/2 #superfamily macrophage inflammatory protein
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MPsrch\_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Thu Apr 1 07:44:14 1999; masPar time 2.31 Seconds 139.571 million cell updates/sec Tabular output not generated.

Title: >US-08-927-939-14
Description: (1-12) from US08927939.pep
Perfect Score: 101
Sequence: 1 EICLDPKQKWIQ 12

Scoring table: PAM 150 Gap 15

Searched: 74019 segs, 26840295 residues

Post-processing: Minimum Match 0% Listing first 100 summaries

Database: swiss-prot36 1:swissprot

Statistics: Mean 26.176; Variance 33.721; scale 0.776

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result	Score	% Query Match	Length I	BIG	ID	Description	Pred. No.
1	93	92.1	101	1	IL8_SHEEP	INTERLEUKIN-8 PRECURSO	1.14e-08
N	93	92.1	101	-	IL8_CANFA		
ω	93	92.1	103	1	IL8_PIG		•
4	90	89.1	101	1	IL8_BOVIN	INTERLEUKIN-8 PRECURSO	. 27e
, UI	90	89.1	101	_	IL8_RABIT		6.27e-08
6	88	87.1	99	_	MCP1_HUMAN	MONOCYTE CHEMOTACTIC P	
7	88	٠	101	Н	MCP1_CANFA	MONOCYTE CHEMOTACTIC P	1.93e-07
00	87	٠	99	1	MCP1_PIG		
· •	85		99	<u>, , </u>	MCP2_BOVIN		
10	84		98	1	MCP4_HUMAN	MONOCYTE CHEMOTACTIC P	
1	84		99	μ	IL8_HUMAN	INTERLEUKIN-8 PRECURSO	1.79e-06
12	84		101	س	IL8_CAVPO	INTERLEUKIN-8 PRECURSO	
13	83	•	99	۳	MCPA_BOVIN	MONOCYTE CHEMOTACTIC P	
14	82		125	دسا	MCP1_RABIT	MONOCYTE CHEMOTACTIC P	5.35e-06
15	81	80.2	97	۳	EOTA_MOUSE	ECTAXIN PRECURSOR (EOS	9.23e-06
16	81	•	97	٢	EOTA_RAT	EOTAXIN PRECURSOR (EOS	
17	81	٠	99	_	MCP3_HUMAN	MONOCYTE CHEMOTACTIC P	
18	80		89	μ.	SDF1_MOUSE		
19	80		93	<b>-</b>	SDF1_HUMAN	STROMAL CELL-DERIVED F	1.59e-05
20	80		97		EOTA_HUMAN	EOTAXIN PRECURSOR (EOS	
21	80	79.2	101	۲	IL8_CERTO	INTERLEUKIN-8 PRECURSO	1.59e-05
22	80	79.2	101	ш	IL8_MACMU	INTERLEUKIN-8 PRECURSO	
23	79	78.2	99	۳	MCP2_PIG	MONOCYTE CHEMOTACTIC P	2.72e-05

00000000000000000000000000000000000000	78.2 74.3 72.3 72.3 72.3 71.3 70.3 70.3
1096 1096 1096 1096 1096 1096 1096 1096	120 104 96 92 74 99 103 1148 148 92 197
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01-FEB-1995 (REL. 3
01-FEB-1995 (REL. 3
01-NOV-1995 (REL. 3
INTERLEUXIN-8 PRECU
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P36925;
O1-JUN-1994 (REL. 2
O1-JUN-1994 (REL. 2
O1-NOV-1995 (REL. 2
INTERLEUKIN-8 PRECU
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DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                    SEGW H.F., YOSHIMURA T., WOOD P.R., COLDITZ I.G.;
INMUNOL. CELL BIOL. 72:398-405(1994)
-!- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
-!- SUBUNIT: HOMODIMER.
-!- SUBUNIT: HOMODIMER.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINI
C-X-C) (CHEMOKINE CXC).
EMBL; S74336; G463354; -.
EMBL; S74436; G786591; -.
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EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE;
SEQUENCE FROM N.A.
MEDLINE; 94010328.
ISHIKAWA J., SUZUKI S.,
GENE 131:305-306(1993).
                                                      CANIS FAMILIARIS (DOG).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                PIR; S42496; S42496.
HSSP; P10145; 3IL8.
PROSITE; PS00471; SM
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                                               EUTHERIA;
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LEGASTELOIS I., GR
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Similarity 75.0%;
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f., YOSHIMURA T.,
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                                               CARNIVORA
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XIS; INFLAMMATORY RESPONSE;
22 BY SIMILARITY.
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YJ9G_YEAST
HA1A_BOVIN
FOLC_HUMAN
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          MIZUNO
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MICHAEL L.H., ROT A., ENTMAN M.L.;
J. CLIM. INVEST. 95:89-103(1994).
-i- FUNCTION: IL-8 IS A CHEMOTRACTIC FACTOR THAT AT
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES: IT
NEUTROPHIL ACTIVATION: IT IS RELEASED FROM SEV
RESPONSE TO AN INFLAMMATORY STIMULUS.
-i- SUBUNIT: HOMODIMER.
-i- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FA
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SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
TISSUE-LYMPH NODE;
MEDLINE; 95127913.
MATSUMOTO Y., MOHAM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DISULFID
DISULFID
SEQUENCE
                     GOODMAN R.B., FOSTER D.C., MATHEWES FORSTROM J.W., MARTIN T.R.; BIOCHEMISTRY 31:10483-10490(1992).
                                                                                                         SEQUENCE FROM N.A.,
TISSUE-LUNG;
MEDLINE; 93041741.
                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
MEDLINE; 94103307.
LIN G., PEARSON A.E., SCAMURRA
WEISS D.J., MURTAUGH M.P.;
J. BIOL. CHEM. 269:77-85(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MATSUMOTO Y., MOHAMED A.,
GOITSUKA R., TSUJIMOTO H.
ISHIKAWA J., HOTTA K., SU
CYTOKINE 6:455-461(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ILB
SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
EUTHERIA; ARTIODACTYLA.
                                                                                                                                                                                                                                     SUBMITTED
                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. SANJANWALA M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE; 95114148.

KUKIELKA G.L., SMITH W.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N
STRAIN-MONGREL;

 I) (AMCF-I).

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                  (JUL-1991)
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34
36
101
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REL. 23, LAST SEQUENCE UPDATE)
REL. 34, LAST ANNOTATION UPDATE)
PRECURSOR (II-8) (ALVEOLAR MACROPHAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
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L; TISSUE-JUGULAR VEIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AA;
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61
77
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75.0%;
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O H., HASEGAWA A., FURUSA
, SUZUKI K., HIROTA Y.;
                                                                                                                                                                                                                                                                                                                                                                                                               SCAMURRA R.W.,
                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                  EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HASEGAWA A., FURUSAWA S., YOSHIHARA K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 93; DB 1; 1
Pred. No. 1.14e-08;
3; Mismatches (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INTERLEUKIN-8.
BY SIMILARITY.
BY SIMILARITY.
7C49D62D CRC32;
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B.J., YOUKER K.A., HA
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OH
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                                                                                   OSBORN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                  BAARSCH M.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 101;
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                                                                                                                                                                                                                                  BANKS
                                                                                s.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHEMOTACTIC FACTOR
                                                                                   KUIJPER J.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   H.K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
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Best Local
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EMBL; M86923; G164521; -.

EMBL; X61151; G516197; -.

EMBL; M99367; G1235612; -.

PIR; A44253; A44253

PIR; A34819; A39819

HSSP; P10145; 3IL8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1997
01-NOV-1997
01-NOV-1997
                                                                                                                                         CAMPOS M., BABIUK L.A.;

MICROB. PATHOG. 20:203-212(1996).

-I- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,

-I- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,

BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN

NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN

RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).

-I- SUBUNIT: HOMODIMER (BY SIMILARITY).

-I- SUBUNIT: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE

C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
DISULFID
CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IL8_BOVIN
P79255;
                                                                 CYTOKINE;
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              J. BIOL. CHEM. 266:8457-8463(1991),

-I. FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHILS AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
-I- SUBUNIT: HOMODIMER.
-I- TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.
-I- INDUCTION: BY LIPOPOLYSACCHARIDE.
-I- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. MEDLINE; 96304552.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             BOS TAURUS EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL
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MEDLINE; 91217086.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF 26-45.
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                                                 CHAIN
                                                                                                            PROSITE;
                                                                                                                                                                                                                                                                                                                                                MORSEY M.A., POPOWYCH Y., KOWALSKI J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                           EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REVISION TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INTERLEUKIN-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROSITE;
C-X-C) (CHEMONING, C.X-C) (CHEMONING, C.X-C) (CHEMONING, C.X-C) (C.X-C) (C.X-C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       75 EVCLDPKEKWVQ 86
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PS00471; SMALL_CYTOKINES_CXC;
CHEMOTAXIS; INFLAMMATORY RESI
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                                                                                                                                                                                                                                                                                                                                                                                                                                           ARTIODACTYLA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           (BOVINE).
METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1
26
34
36
36
33
87
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(REL. 35, LAST SEQUENCE UP
(REL. 35, LAST ANNOTATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRECURSOR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
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103
61
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75.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INTERLEUKIN-8.
BY SIMILARITY.
BY SIMILARITY.
RC -> CR (IN REF. 5).
K -> KK (IN REF. 2).
W; A012D59D CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 93; DB 1; I
Pred. No. 1.14e-08;
3; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERTEBRATA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         UPDATE!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      101 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               _
                                                                                                                                                                                                                                                                                                                                                   GERLACH
                                                                                                                                                                                                                                                                                                                                                                                                                                                           TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 103;
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Best Local Similarity
Matches 9; Conser
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Best Local Similarity
Matches 8; Consei
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                                                                                                                                                                                                                               CHAIN
DISULFID
DISULFID
CONFLICT
SEQUENCE
01-JAN-1990 (REL. 13, CREATED)
01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)
                                                                  MCP1_HUMAN
P13500;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IL8_RABIT P19874;
                                                                                                                                                                                                                                                                                                                                                       WATERFIELD M.D., WILLIAMS T.J.;

BIOCHEM. J. 271:797-801(1990),

-: FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,

-: PUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,

-: BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN

NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN

RESPONSE TO AN INFLAMMATORY STIMULUS.

-: SIMUNIT: HOMODIMER.

-: SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                          SIGNAL
                                                                                                                                                                                                                                                                                                       PIR; S13052; S13052.
HSSP; P10145; 3IL8.
PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF 23-53.
STRAIN-NEW ZEALAND WHITE; TISSUE-PERITONEAL CAVITY;
MEDLINE; 91058518.
BEAUBIEN B.C., COLLINS P.D., JOSE P.J., TOTTY N.F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-FEB-1991 (REL. 17, CREATED)
01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
01-DCC-1992 (REL. 32, LAST ANNOTATION UPDATE)
01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT/ACTIVATION
PROTEIN-1) (NAP-1) (PERMEABILITY FACTOR 1) (RPF1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORYCTOLAGUS CUNICULUS (RABBIT).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-NEW ZEALAND WHITE; MEDLINE; 91225489.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EUTHERIA; LAGOMORPHA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YOSHIMURA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                      75
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                                                                                                                                            ELCLDPKEKWVQ 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EVCLNPKEKWVQ
                                                                                                                               EICLDPKQKWIQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .....т. УUНК. ....
Д. 146:3483-3488(1991).
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101 AA;
                                                                                                                                                                                                                               101
                                                                                                                                                                                                                                            34
34
50
                                                                                                                                                                               Conservative
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                                                                                                                                                                                                                                .
A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YUHKI N.;
                                                                               STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
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101
61
77
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11291 MW;
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75.0%;
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11402
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                                                                                                                                                                                                                                MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-SPLEEN;
                                                                                                                                                                              Score
Pred.
3; M
                                                                                                                                                                                                                                         INTERLEUKIN-8.
BY SIMILARITY.
BY SIMILARITY.
K -> I (IN REF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 90; DB 1; 1
Pred. No. 6.27e-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4;
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                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                               -> I (IN REF. 2). CB32CC30 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                 INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0E39C526 CRC32;
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. 6.27e-08;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  J.
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LUBKOWSKI J.
                                                                                                                                                                                                                                                                                                                                             SEQUENCE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE;
                                     MEDLINE; 96234959.
HANDEL T.M., DOMAILLE P.J.;
BIOCHEMISTRY 35:6569-6584(1996).
                                                                                                                                                                                      MEDLINE; 91
GRONENBORN
                                                                                                                                                                                                                                                               SEQUENCE OF 29-53
MEDLINE; 90211336
                                                                                                                                                                                                                                                                                                                  MEDLINE; 89184525.
ROBINSON E.A., YOSHIMURA T.,
SHABANOWITZ J., HUNT D.F., A
                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
MEDLINE; 92095166.
YOSHIMURA T., LEONARD
                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE: 94150478.
LI Y.S., SHYY Y.J.,
KOLATTUKUDY P.E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE; 91207938.
CHANG H.C., HSU F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. MEDLINE; 91207938.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. MEDLINE; 90290466. SHYY Y.J., LI Y.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE; 89153605.
YOSHIMURA T., YUHKI N.,
LEONARD E.J.;
FEBS LETT. 244:487-493(1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FURUTANI Y., NOMURA H., LARSEN C.G., OPPENHEIM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EUKARYOTA; METAZOA;
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OMOH
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MEDLINE;
                                                                              STRUCTURE
                                                                                                                                                                                                                                       DECOCK B., CONINGS
BIOCHEM. BIOPHYS. F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BIOCHEM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                        PROC. NATL.
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             EFFECT OF
                                                                                                                                                                         PROTEIN ENG.
                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                            K-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
                                                                                                                                                                                                  3D-STRUCTURE MODELLING MEDLINE; 91312872.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SAPIENS (HUMAN).
SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                                                     EXP.
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J., LI Y.S.,
BIOPHYS. RE
 96195223.
                                                                                                                                                                                                                                                                                                                                                           OF 24-99
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                                                                                                                                                                                                                                                                                                                                                                                    MED.
                                                                                BY NMR
                                                                                                                                                                     1312872.
| A.M., CLORE G.M.;
|G. 4:263-269(1991).
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                                                                                                                                                                                                                                                                              29-53 AND
                                                                                                       BIOL.
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1:388-399(1989).
                                                                                                   BUJACZ G., DOMAILLE P.J., HANDEL T.M., BIOL. 4:64-69(1997).
                                                                                                                                                                                                                                                                                                                                                                                    BIOL.
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ES. COMMUN. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WRIGHT J.G., VALENTE A.J.,
                                                                                                                                                                                                                                                                                                                                                                                   ) E.J.;
305:47-56(1991).
            N-TERMINAL RESIDUES.
                                                                                                                                                                                                                                         COMMUN. 1
                                                                                                                                                                                                                                                                               82-92
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J.J., MATSU
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                                                                                                                                                                                                                                                                                                                   APPELLA E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MATSUSHIMA K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                        86:1850-1854(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Y P.E.;
169:346-351(1990)
                                                                                                                                                                                                                                      5 J.-P., BILIAU A., VAN DAMME J.;
167:904-909(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WONG
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                                                                                                                   WLODAWER A.;
                                                                                                                                                                                                                                                                                                                                 GRIFFIN P.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               J.F.,
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Query Match
Best Local S
Matches 1
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EMBL; M31626; G386961; J
EMBL; M31625; G386961; J
EMBL; M31625; G386961; J
EMBL; M24245; G307163; J
EMBL; M28226; G338009; -
EMBL; M37719; G3487124; -
EMBL; M37719; G38007; J
EMBL; M28225; G338007; J
EMBL; M28223; G338007; J
EMBL; M28223; G338007; J
EMBL; S569738; G5454665; EMBL; S71513; G240868; -
EMBL; S71513; G240868; -
                                                                         MUTAGEN
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DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                  CYTOKINE;
SIGNAL
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PDB;
PDB;
PDB;
PDB;
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PIR;
                                                                                                                                                                                                                                                                VARIANT
MUTAGEN
MUTAGEN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WEBER M.,
                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                  CHAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE; 94253189.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BIOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATHEROSCIEROSIS.

ATHEROSCIEROSIS.

ATHEROSCIEROSIS.

SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.

SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.

SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.

PIM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET CELL SELECTIVITY. DELETION OF THE AMINO- TERMINAL RESIDUE CONVERTS

CELL SELECTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOATTRACTANT.

IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOATTRACTANT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS BUT NOT NEUTROPHILS OR EGSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISBASES CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISBASE PROCESS OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A35474;
S03339;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                K.-S., RAJARATHNAM K., C. LETT. 395:277-282(1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1DOL;
 Similarity
10; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MED.
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                                                                                                                                                                                                                                                                                                                                                                                                                                   CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     UGUCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.;
ED. 183:681-685(1996).
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 Conservative
                                                                                                 95554222222733322
95554222222735444
95107964454675444
                                                                                                                                                                                                                                                                                                                                                                                                                                   SMALL_CYTOKINES_CC; 1.
XIS; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
                                                                         11025
                     87.1%;
83.3%;
                                                                                                                55
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                                                                           MW.
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Score
Pred.
                                                                                           MISSING: LOSS OF ACTIVITY MISSING: LOSS OF ACTIVITY MISSING: LOSS OF ACTIVITY MISSING: 90% REDUCTION I PARTICLE OF ACTIVITY OF
                                                                                                                                                                                                                                                                                                                                                                             MONOCYTE CHEMOTACTIC PROTEIN 1. PYRROLIDONE CARBOXYLIC ACID.
                                                                                                                                                                                                                                                                                                                        POTENTIAL.
                                                                           5355B695
   Mismatches
                                                                                                                                3: LOSS OF ACTIVITY.
G: LOSS OF ACTIVITY.
AG: 90% REDUCTION IN ACTIVITY.
NG: 83% REDUCTION IN ACTIVITY.
90% REDUCTION IN ACTIVITY.
: 50% REDUCTION IN ACTIVITY.
: 95% REDUCTION IN ACTIVITY.
                     88; I
                                                                           REDUCTION CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Η.,
                     DB 1; Lo
1.93e-07;
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   1;
                                      Length 99;
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   Indels
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RESULT
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Best Local S
Matches 1
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CIRCULATION 95:693-700(1997).
-i- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM. MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE REPERFUSED MYOCARDIUM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                     MCP1_PIG STANDARD; PRT; 99 AA.
P42831;
01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
SCYA2.
                                          SEQUENCE FROM N.A.
MEDLINE; 94183284.
HOSANG K., KNOKE I., K
BIOCHEM. BIOPHYS. RES.
                                                                                                                                                                                                                      SUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -i- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY S-i- INDUCTION: BY TNF-ALPHA.
-i- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CANIS FAMILIARIS (DOG)
EUKARYOTA; METAZOA; CHO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHEMOATTRACTANT PROTEIN-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P52203;
01-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VEINS, AND INFILTRATING LEUKOCYTES.
-1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SCYA2 OR MCP1.
SEQUENCE FROM N.A
                                                                                                                                                                    EUTHERIA;
                                                                                                                                                                                          EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FISSUE-JUGULAR VEIN ENDOTHELIAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EUTHERIA; CARNIVORA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MCP1_CANFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              73 EICADPKQKWVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Н
                                                                                                                                                                                                            SCROFA (PIG).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FICLDPKQKWIQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EICLDPKQKWIQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                U29653;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           h 87.1%;
Similarity 83.3%;
10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9653; G1144185; -.
PS00472; SWALL_CYTOKINES_CC; 1.
PS00472; SWALL_CYTOKINES_CC; 1.
PS00472; SWALL_CYTOKINES_CC; 1.
PS0477; SWALL_CYTOKINES_CC; 1.
BY SIMILARITY.
PS04 101 MONOCYTE CHEMOTACTIC PROTEIN 1.
PS057 THOME CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (CHEMOKINE CC).
                                                                                                                                                                    ARTIODACTYLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       34
35
101 AA;
                                                                                                                                                                                          METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12
                                                                                                                                                                                          CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   59
75
                                               KLAUDINY
S. COMMUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 88; DB 1; L
Pred. No. 1.93e-07;
1; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY).
BY SIMILARITY
BY SIMILARITY
                                            J., WEMPE F., WUTTKE W., 199:962-968(1994).
                                                                                                                                                                                     VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A7075B14 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       101
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TETRAPODA; MAMMALIA;
                                                                                                                                                                                     TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (BY SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                   SCHEIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INTRAFASCICULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                   K.H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
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                                                                                                            Query Match
Best Local S
Matches
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Best Local S
Matches
                                                                                                                                                                                                                           DISULFID
DISULFID
SEQUENCE
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DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BOS TAURUS
EUKARYOTA; !
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MCP2_BOVIN STANDARD; PRT; 99 AA.

Q09141;
Q1-NOV-1995 (REL. 32, CREATED)
Q1-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2)
                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; S67954; E118856; -
EMBL; S67956; G544997; -
PROSITE; PS00472; SMALL_0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -!- SUBUNIT: MONOMER OR HOMODIMER;
-!- SIMILARITY: BELONGS TO THE INTI
C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE; 94114084.
WEMPE F., HANES J., SCHEIT I
DNA CELL BIOL. 13:1-8(1994)
-!- FUNCTION: CHEMOTACTIC FI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -!- SUBUNIT: MONOMER OR
-!- SIMILARITY: BELONGS
C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBMITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                         CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SCYA8 OR MCP2
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EMBL; X79416; G872313; -
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ZACH O.R.F.;
                                                                                                                                                                                                                                                                                                                                          MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EUTHERIA; ARTIODACTYLA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                     CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                         73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               73
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAN BIND HEPARIN
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                                                         DVCADPKQKWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EICLDPKQKWIQ 12
   EICLDPKQKWIQ
                                                                                                                                       Similarity
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                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9;
                                                                                                                                                                                                                                                                                                                                                                                                                                  CHEMOTAXIS; SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (BOVINE).
METAZOA; CHORDATA;
                                                                                                                                                                                                                                 99
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                                                                                                               Conservative
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24
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                                                                                                                                                                                                                                                                                                               SMALL_CYTOKINES_CC; 1.

XIS; SIGNAL; HEPARIN-BITY.
23 BY SIMILARITY.
99 MONOCYTE CHEMOTACTIC PROTEIN 2.
24 PYRROLLDONE CARBOXYLIC ACID (BY
SIMILARITY).
   12
                                                      84
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                                                                                                                                       84.2%;
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75.0%;
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24
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SCHEIT K.H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         59
75
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2)
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                                                                                                                                                                                                                                 M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WW.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FACTOR THAT ATTRACTS MONOCYTES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MODIMER; IN EQUILIBRIUM (BY THE INTERCRINE BETA FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 87;
Pred. No.
                                                                                                         Score 85; DB 1;
Pred. No. 1.03e-06
3; Mismatches
                                                                                                                                                                                                                           BY SIMILARITY.
BY SIMILARITY.
9BA2CD26 CRC32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred.
2; N
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BY SIMILARITY.
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PYRROLIDONE CARBOXYLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BY SIMILARITY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INES_CC; 1.
INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ECC3AFB4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IN EQUILIBRIUM (BY ERCRINE BETA FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3.39e-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CRC32;
                                                                                                                                                                                                                              CRC32;
                                                                                                                                                               Length 99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 99;
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                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (SMALL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BUT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      THIS PROTEIN
                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NOT
                                                                                                            Gaps
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Query Match
                                           CHAIN
MOD_RES
DISULFID
DISULFID
CARBOHYD
                                                                                                                 CYTOKINE;
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTEACTS MONOCYTES, LYMPHOCYTES,
BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
LEUROCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
WALL DURING THE DISEASE PROCESS OF ARTHEROSCIEROSIS. MAY PLAY A
ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
                                                                                                                                                         EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOURBAGY N., APPELBAUM E., REAPE T.J., BRAWNER M., MAKWANA J., FOLEY J.J., SCHMIDT D.B., IMBURGIA C., MACULITY D., MATTHEWS J., O'DONNELL K. O'SHANNESSY D., SCOTT M., GROOT P.H.E., MACPHEE C.; J. BIOL. CHEM. 272:16404-16413(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE; 97113354.
GARCIA CEPEDA E.A., COMBADIERE C., LAVIGNE F., HAMID Q., MURPHY P.M., J. IMMUNOL. 157:5613-5626(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-JUL-1998 (REL. 36, CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4)
CHEMOATTRACTANT PROTEIN 4) (CK-BETA10) (NCC-1).
SCYA13 OR MCP4 OR NCC1.
                             SEQUENCE
                                                                                                                                                                                                             -:- MASS SPECTROMETRY: MW-9314; MW_ERR-30; METHOD-MALDI; RANGE-17-9
-:- MASS SPECTROMETRY: MW-8756; MW_ERR-30; METHOD-MALDI; RANGE-22-9
-:- MASS SPECTROMETRY: MW-8575; MW_ERR-30; METHOD-MALDI; RANGE-24-9
-:- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.
-:- TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE,
-:- THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVEL
SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
-:- THIS PROTEIN CAN BIND HEPARIN.
-:- THIS PROTEIN CAN BIND HEPARIN.
-:- PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4
-:- CINNOLLANCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE.
(LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.
-:- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKI
                                                                                                                                                                                                                                                                                                                                               ----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM DANTE M., GIBS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BERKHOUT T.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE-FETAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         UGUCCIONI M., LOETSCHER P., FORSS
LI Y., KREIDER B., GAROTTA G., TH
J. EXP. MED. 183:2379-2384(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MCP4_HUMAN
Q99616;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE; 96235049
                                                                                                                                             PROSITE;
                                                                                                                                                                                                                   ÷
                                                                                                                                                                                    SIMILARITY: BELONGS TO C-C) (CHEMOKINE CC).
L; U46767; G1732123; -.
                                                                                                                                                                                                                                                                                                                                                                                        EXOGENOUS PATHOGENS.
                                                                                                                                                                        AC002482; G2340091;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97341179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIMATES
                                                                                                                              CHEMOTAXIS;
                                            24
34
35
29
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                             SMALL_CYTOKINES_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AND
                             10986 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHORDATA;
                                                                                                                              SIGNAL;
 . 28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FORSSMANN
G., THELEN
                                           PYRROLIDONE CAR
BY SIMILARITY.
BY SIMILARITY.
POTENTIAL.
Score
                                                                                                  MONOCYTE CHEMOTACTIC PROTEIN 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                            DF52F6EC CRC32
                                                                                                                              GLYCOPROTEIN; INFLAMMATORY RESPONSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 엵
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(၃
 84;
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LUSTER A.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22-33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       X C
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DB 1;
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                                                                                      CARBOXYLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEWALD B.,
BAGGIOLINI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ., M.E.,
Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SARAFI M.
98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Z E
                                                                                                                                                                                                                (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    н.,
                                                                                                                                                                                                                                                                                                                                            RANGE=17-98.
RANGE=22-98.
RANGE=24-98.
                                                                                                                                                                                                                                                          (LA)MCP-4
                                                                                                                                                                                                                                                                                                   INTESTINE,
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RESULT RESULT REPORT OF THE SULT REPORT OF THE SULT RESULT RESULT
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Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GOLDS E.E.,
BIOCHEM. J.
                                                                                                                    SEQUENCE
MEDLINE;
WALZ A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAR-1989 (REL. 10, CREATED)
01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
15-JUL-1989 (REL. 36, LAST ANNOTATION UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
1NTERLEUKIN-8 PRECURSOR (IL-8) (MONOCYTE-DERIVED NEUTROPHIL
CHEMOTACTIC FACTOR) (MUNCF) (T-CELL CHEMOTACTIC FACTOR) (NEUTROPHIL-
ACTIVATING PROTEIN 1) (NAP-1) (LYMPHOCYTE-DERIVED NEUTROPHIL-
ACTIVATING FACTOR) (LYMAP) (PROTEIN 3-10C) (MEUTROPHIL-ACTIVATING
ACTIVATING FACTOR) (MAP) (GRANULOCYTE CHEMOTACTIC PROTEIN 1) (GCP-1) (EMOCTAKIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MATSUSHIMA K., MORISHITA K., YOSI
LEW W., APPELLA E., KUNG H., LEOI
J. EXP. MED. 167:1883-1893(1988)
                                                                                                                                                                                                                                      SEQUENCE OF 28-99
MEDLINE; 88162914
GREGORY H., YOUNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF 23-46. MEDLINE; 89246368.
                          SEQUENCE OF 28-69
MEDLINE; 88097462
                                                                                                                                                                                                                   BIOCHEM.
                                                                                                                                                                                                                                                                                                                                                        SUZUKI K., MIYASAKA
MIZUNO S.;
                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 23-54.
MEDLINE; 89279141.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUBMITTED (JAN-1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
MEDLLNE; 89309826.
MURAIDA N. SHIROO M., MATSUSHIMA
J. IMMUNOL. 143:1366-1371(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. MEDLINE; 89313739. KOWALSKI J., DENHA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SCHMID J., WEISSMANN C.;
J. IMMUNOL. 139:250-256(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. MEDLINE; 87224164.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. MEDLINE; 88258376.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P10145;
01-MAR-1989
                                                                                                 BIOCHEM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               72
                                                                                                                                                                                                                                                                                                                                  EXP.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EICLDPKQKWIQ
                                                                                                                                                                                                                                      H., YOUNG
                                                                                                                                                                                                                                                                                                                                     MED.
                                                                                              88106502.
PEVERI P.,
BIOPHYS. RE
                                                                                                                                                                                                                   BIOPHYS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ٦.;
    T., MATSUSHIMA
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259:585-588(1989).
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                                                                                                                                                                                                                                                                                                                                  169:1895-1901(1989)
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9:1946-1957(1989)
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                                                                                                                      ASCHAUER H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                SCHROEDER J.M., MROWIETZ U., COMMUN. 151:883-890(1988).
                                                                                                 COMMUN.
                                                                                                                                                                                                                                                                                                                                                                              OTA H., YAMAKAWA Y., TAGAWA M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL/GENBANK/DDBJ DATA BANKS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               K., YOSHIMURA
H., LEONARD E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. 1.79e-06; 2; Mismatches 1;
    TANAKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                              ., BAGGIOLINI M.;
149:755-761(1987)
    s;
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    ROBINSON
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LAVU S., K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                        CHRISTOPHERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KOBAYASHI
M J.J.;
    APPELLA
                                                                                                                                                                                                                                                                                                                                                                                KURAMOTO A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
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RA BAGGILLINI M., CLARK-LEWIS I.;

RE FEBS LETT. 307:97-101(1992).

CC -!- FUNCTION: II-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,

CC BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN

CC NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN

CC RESPONSE TO AN INFLAMMATORY STIMULUS.

CC -!- SUBBUNIT: HOMODIMER.

CC --- SUBBUNIT: HOMODIMER.

CC --- SUBBUNIT: GOALSH: ---

CC --- SUBBUNIT: GASLS: ---

CR EMBL; W10787; G34519; ---

DR EMBL; W10787; G34519; ---

DR EMBL; W28130; G186568; ---

DR EMBL; W28130; G186568; ---

DR EMBL; D14283; G219916; ---

DR EMBL; D14283; G3975.

DR PIR; S03975; S03975.

DR PIR; S04216; S04216.

DR PIR; S0416; S04216.

DR PIR; S18118; 15-JAN-91.
          CYTOKINE;
SIGNAL
CHAIN
                                              PDB; 11KL; 15-OCT-95.
PDB; 11KM; 15-OCT-95.
MIM; 146930; -.
PROSITE; PS00471; SMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDITINE; 91171280.
CLORE G.M., GRONENBORN A.M.;
T MOL. BIOL. 217:611-620(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                  SYNTHESIS OF 28-99.
MEDLINE; 91175767.
MEDLINE; 91175767.
MOSE B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-TERMINAL FORMS.
MEDLINE: 89231715.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WILLEMS J., BILLIAU A.;
EUR. J. IMMUNOL. 20:2113-2118(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE; 91006326.

VAN DAMME J., RAMPART M., CONING R., WILLEMS J., BILLIAU A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE; 90216714.
BALDWIN E.T., FRANKLIN K.A., APPELLA WLODAWER A., WEBER I.T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRUCTURE BY MAR.
MEDLINE; 90234679.
CLORE G.M., APPELJA E., YAMADA M.,
BIOCHEMISTRY 29:1689-1696(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OPPENHEIM J.J., LEONARD E.J.;
PROC. NATL. ACAD. SCI. U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VAN DAMME J., VAN
EUR. J. BIOCHEM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        X-RAY CRYSTALLOGRAPHY, MEDLINE; 91171286.
                                                                                                                                                                                                                                                                                                                                                                                              BIOCHEMISTRY 30:3128-3135(1991).
                                                                                                                                                                                                                                                                                                                                                                                                            AEBERSOLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BALDWIN E.T., WEBER I.T., ST CHARLES R. YAMADA M., MATSUSHIMA K., EDWARDS B.F., PROC. NATL. ACAD. SCI. U.S.A. 88:502-50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       X-RAY CRYSTALLOGRAPHY (1.6 ANGSTROMS),
                                                                                                                                                                                                                                                                                                                                                          MEDLINE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ODAWER A., WEBER I.T.;
BIOL. CHEM. 265:6851-6853(1990).
                                                                                                          2IL8; 15-JAN-91.
3IL8; 15-OCT-92.
                                                                                                                                                                                                                                                                                                                                                         92347562
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                                      CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VAN BEEUMEN J., CONINGS R., EM. 181:337-344(1989).
                                  SMALL_CYTOKINES_CXC; 1.
KIS; INFLAMMATORY RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SCI. U.S.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                     WALZ A.,
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INTERLEUKIN-8.

ONE OR MORE OF THESE RESIDUES ARE MISSING
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                                   SIGNAL;
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                                   3D-STRUCTURE
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P49113;

01-FEB-1996 (REL. 3

01-FEB-1996 (REL. 3

01-OCT-1996 (REL. 3

01-OCT-1996 (REL. 3
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J. IMMUNOL. 151:6225-6236(1993).
J. IMMUNOL. 151:6225-6236(1993).
-i- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
-i- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
-i- SUBUNIT: HOMODIMER (BY SIMILARITY).
-i- SUBUNIT: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
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MCPA_BOVIN STANDARD;
P28291;
01-DEC-1992 (REL. 24, CREATED)
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TURN
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EUKARYOTA; METAZOA; CHORDATA;
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                                                                                                                                                                                                                                                                                                                                                                 PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (NAP-1).
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86; G459765; -.
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REL. 33, LAST SEQUENCE UPDATE)
REL. 34, LAST ANNOTATION UPDAT
PRECURSOR (IL-8) (NEUTROPHIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
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Pred. No. 1.79e-
4; Mismatches
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BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                            INTERLEUKIN-8
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(NEUTROPHIL ATTRACTANT PROTEIN 1)
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Best Local
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P28292;
01-DEC-1992
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01-DEC-1998
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BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994)
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE-SEMINAL PLASMA;
MEDLINE; 92096117.
WEMPE F., HENSCHEN A., SCHEIT K.H.;
DNA CELL BIOL. 10:671-679(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
01-NOV-1995 (REL. 32, LAST ANNOTATION UPDAT
MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (
SEMINAL FLUID POTOFEIN)
BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; T
                                                                                   YOSHIMURA T., YUHKI N.;
J. IMMUNOL. 146:3483-3488(1991).
-!- FUNCTION: CHEMOTACTIC FACTOR THAT
                                                                                                                                                                                                                                                                                                                       ORYCTOLAGUS CUNICULUS (RABBIT EUKARYOTA; METAZOA; CHORDATA;
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CHAIN
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EMBL; M84602; G163395; -...
PIR; A39296; A39296.
PIR; JC2336; JC2336.
                                                                                                                                                                             STRAIN-NEW ZEALAND WHITE; MEDLINE; 91225489.
                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
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WEMPE F., EINSPANI
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  NEUTROPHILS.
SUBUNIT: MONOMER OR
SIMILARITY: BELONGS
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FE; PS00472; :
                                                                                                                                                                                                                                                                                                                                                                                                           992 (REL. 24, CREATED)
992 (REL. 24, LAST SEQ
998 (REL. 36, LAST ANN
CHEMOTACTIC PROTEIN 1
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75.0%;
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24
                                                                                                                                                                                                                                                                                                                                                                                                        , LAST SEQUENCE UPDATE)
, LAST ANNOTATION UPDAT
PROTEIN 1 PRECURSOR (M
                                                                                                                                                                                                                                                                                               (RABBIT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL.
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COMMUN. 183:232-237(1992).
HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ¥,
                                                                                                                                                                                                        TISSUE-SPLEEN
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Pred. No. 3.10e-06
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BY SIMILARITY.
C8F5821D CRC32
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MONOCYTE CHEMOTACTIC PI
PYRROLIDONE CARBOXYLIC
SIMILARITY).
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                                                                                      ATTRACTS
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SOR (MCP-1).
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                                                                                      MONOCYTES,
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Best Local
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DISULFID
CARBOHYD
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01-FEB-1996
15-JUL-1998
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CARBOHYD
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HSSP; P1
PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SCYA11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EOTA_MOUSE
P48298;
                      DISULFID DISULFID
                                                              CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GONZALO J.-A., JIA G.-Q., AGUIRRE JENKINS N.A., LIN G.-S., KATZ H., GUTIERREZ-RAMOS J.-C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-FEB-1996 (REL. 33, CREATED)
01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
15-UL-1998 (REL. 36, LAST ANNOTATION UPDATE)
EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                            EMBL; U26426; G995911; -.
EMBL; U40672; G1113937; -.
MGD; MGI:103576; SCYA11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROC. NATL. ACAD.
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EUKARYOTA; MI
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                                                                                 SIGNAL
                                                                                                                                                                                                                                             -1- PTM: O-GLYCOSYLATED (PROBABLE).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE; 96158746.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE;
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    SEQUENCE
                                                                                                                                               PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IMMUNITY 4:1-14(1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE-LUNG
                                                                                                        INFLAMMATORY
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3L; M57440; G165470; -.
3S; P13500; 1MCA.
(OSITE; PS00472; SMALL_CYTOKINES_CC; 1.
(TOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
IGNAL 1 23 BY SIMILARITY.
IGNAL 1 25 MONOCYTE CHEMOTACTIC PROTEIN 1.
HAIN 24 125 MONOCYTE CHEMOTACTIC PROTEIN 1.
SHAIN 24 125 SIMILARITY).
SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      74 ICADPKQKWVQ
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                                                                                                                                                                                                                                                                                                   SUBCELLULAR LOCATION: EXTRACELLULAR.
TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELLI CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
                                                                                                                                                                                                                                                                                  CELLS), INTESTINE, HEART, SPLEEN, K INDUCTION: BY INTERFERON-GAMMA AND
                                                                                                                                                                                                                                                                                                                                                                                  FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, T
DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHIIS (A
FEATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
LYMPHOCYTES, MACROPHAGES OR NEUTROPHILS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ICLDPKQKWIQ
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                                                                                                                      PS00472; SMALL_CYTOKINES_CC; IL; CYTOKINE; CHEMOTAXIS; GLYC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96004658.
                                                                                                                                                                                                                        (CHEMOKINE CC).
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METAZOA; CHORDATA;
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35
40
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112
                        7 RESPONSE.
1 23
24 97
32 57
33 73
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LUSTER A.D.,
. SCI. U.S.A.
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81.8%;
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Pred. No.
1; Misma
POTENTIAL.
EOTAXIN.
BY SIMILARITY.
BY SIMILARITY.
F85A96BC CRC32;
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BY SIMILARITY.
POTENTIAL.
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POTENTIAL.
1; FBAC9D27
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92:8960-8964(1995).
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                                                                                                                        GLYCOPROTEIN;
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No. 5.35e-06
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                                                                                                                                                                                                                                                                                  LIPOPOLYSACCHARIDE (LPS).
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                                                                                                                        SIGNAL
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SEQUENCE
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DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EOTA_RAT STANDARD; PRT; 97 AA P97545; 008780; REL. 36, CREATED) 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE) 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDAT EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PRATTUS NORVEGICUS (RAT).
                                                                                                       P80098;

01-DEC-1992 (REL. 24, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE CHEMOATTRACTIANT PROTEIN 3) (NC28).
SCYA7 OR MCP3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.

-!- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).

-!- SUBCELLULAR LOCATION: EXTRACELULAR.

-!- PTM: O-GLYCOSYLATED (PROBABLE).

-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINI)
                                       HOMO SAPIENS (HUMAN)
EUKARYOTA; METAZOA;
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. WILLIAMS C.M., NEWTON FLANAGAN B.F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; Y08358; E274141; -.
EMBL; U96637; G2098785; -.
PROSITE; PS00472; SMALL_CYTOKINES_CC;
                                                                                                                                                                                                                                                          MCP3_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EOSINOPHIL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE-LUNG;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFLAMMATORY
                                                                                                                                                                                                                                                                                                                                    71 EICADPKKKWVQ 82
||| ||| ||:|
1 EICLDPKQKWIQ 12
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FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                            9;
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                                                                                                                                                                                                                                                                                                                                                                                                                          80.2%;
larity 75.0%;
Conservative
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larity 75.0%;
Conservative
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1 23
24 97
32 57
32 73
34 94
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AND
                                                               CHORDATA;
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SEQUENCE OF
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Pred. No. 9.23e-06;
1; Mismatches 2;
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EOTAXIN.
BY SIMILARI
BY SIMILARI
POTENTIAL.
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                                                             VERTEBRATA;
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  31-67
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  AND 71-99
                                                             TETRAPODA; MAMMALIA;
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Matches
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CAN BIRD HEPARIN.

-!- SUBUNIT: MONOMER.
-!- PIM: O-GLYCOSYLATED.
-!- SIMILARITY: BELONGS TO THE INT
C-C) (CHEMOKINE CC).
EMBL; X72308; G313708; ALT_INIT.
EMBL; X72309; -; NOT_ANNOTATED_CDS
EMBL; X71087; G288399; ALT_INIT.
EMBL; X71087; G288397; ALT_INIT.
FIR; S32222; S32222.
PIR; S32222; S32222.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.

MEDLINE; 94375065.

OPDENAKER G., FITEN P., NY:
LAUREYS G., VAN DAMME J.;
GENOMICS 21:403-408(1994).
                                                                            SIGNAL
CHAIN
MOD_RES
DISULFID
DISULFID
CARBOHYD
CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                         MEDLINE: 9/203/53.
MEUNIER S., BERNASSAU J.-M., GUILLEMUT J.-C., SINGHEMISTRY 36:4412-4422(1997).
BIOCHEMISTRY 36:4412-4422(1997).
-I- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-COSINOPHILS, BUT NOT RELEASE OF GELATINASE B. THIS
                                                                                                                                                                                                                                                                                                                                                                                                                                  FEBS LETT.
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MEDLINE; 92308855.
VAN DAMME J., PROOST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BIOCHEM. BIOPHYS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MINTY A., CHALON P., GUILLEMOT J.C., KACMAGAZIN M., MILOUX B., MINTY C., RAMOND SHIRE D., FERRAKA P., CAPUT D.;
EUR. CYTOKINE NETW. 4:99-110(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE; 93213290
OPDENAKKER G., FRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 30-99
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRUCTURE BY NMR, MEDLINE; 97053697
                                                                                                                                                                      NFLAMMATORY
                                                Local
                  73 EICADPTQKWVQ
                                                           Match
 EICLDPKQKWIQ
                                      Similarity
9; Conser
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                                                                                                                                                                             PS00472; SMALL_CYTOKINES_CC; 1; CHEMOTAXIS; HEPARIN-BINDING;
                                                                                                                                                                                                                                                                                                                                                                                                                                 RAJARATHNAM K., CLARK-LEWIS 395:277-282(1996).
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24
35
35
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                                     Score 81; D
Pred. No. 9.
1; Mismatcl
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                                                                            T -> K (IN REF. MISSING (IN REF. 7502E19C CRC32;
                                                                                                                  PYRROLIDONE CARBOXYLIC BY SIMILARITY.
BY SIMILARITY.
                                                                                                          POTENTIAL.
                                                                                                                                                  MONOCYTE CHEMOTACTIC
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191:535-542(1993).
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                                        Mismatches
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; GLYCOPROTEIN;
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9.23e-06;
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THIS PROTEIN
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Best Local
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JIANG W., ZHOU P., WEINSTEIN I.B.;
SDF1_HUMAN
P48061;
01-FEB-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SDF1_MOUSE STANDARD; PRT; 89 AA.

p40224;
01-FEB-1995 (REL. 31, CREATED)
01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH
STIMULATING FACTOR) (PBSF) (12-O-TETRADECANOYLPHORBOL 13-ACETATE
REPRESSED PROTEIN 1) (TPAR1) (THYMIC LYMPHOMA CELL STIMULATING FACTOR)
                                                                                                                                                                         DISULFID VARSPLIC
                                                                                                                                                                                                                                                                                         EMBL;
EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                         -i- FUNCTION: STIMULATES THE PROLIFERATION OF BONE MARROW-DERIVED I
PROGENITOR CELLS IN THE PRESENCE OF IL-7 AS WELL AS GROWTH OF T
STROMAL CELL-DEPENDENT B-CELL CLONE DM34 CELLS.
-i- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA AND BETA) ARE
PROBABLY GENERATED BY ALTERNATIVE SPLICING.
-i- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTO)
                                                                                                                                                                                                                                                                                                                                                                                                                                        NOMURA M., NAKATA Y., UZAWA A., NOSE M., AKASHI M., SU: SUBMITTED (DEC-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- FUNCTION: CHEMOATTRACTANT ACTIVE ON T-LYMPHOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JIANG W., ZHOU P., WEINSTEIN I.B.; EXP. CELL RES. 215:
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MEDLINE: 93342488.
TASHIRO K., TADA H., HEILK
SCIENCE 261:600-603(1993).
                                                                                                                                                                                                                                              PIR; A53497; A53497; MGD; MGI:103556; SDF1. PROSITE; PS00471; SMAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. MEDLINE; 94181581.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                 DISULFID
                                                                                                                                                                                                                      SIGNAL
                                                                                                                                                                                                                                                                               EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-AKR/J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAGASAWA T., KIKUTANI H., KISHIMOTO T.;
PROC. NATL. ACAD. SCI. U.S.A. 91:2305-2309(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EUTHERIA;
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                                                                                          69 QVCIDPKLKWIQ 80
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                                                                                                                                                                                                                                                                         C-X-C) (CHEMOKINE CXC).
D21072; G468457; -...
L12029; G393180; -...
L12030; G393182; -...
J S74318; G786394; -...
J D43804; G1304174; -...
L13805; G1304175; -...
                                  19
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                                                                                                                             Similarity
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32
89
AA;
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                        STANDARD;
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 33, CREATED)
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BY SIMILARITY.
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STROMAL CELL-DERIVED FACTOR
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                        PRT;
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                                                                                                                             DB 1; L
1.59e-05;
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Best Local Similarity
Matches 8; Consei
                                                      SEQUENCE FROM N.A.
MEDLINE; 96.81758.
GARCIA-ZEPEDA E.A., ROTHENBI
LUSTER A.D.;
NAT. MED. 2:449-456(1996).
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EOTA_HUMAN STANDARD; PRT; 7, 71.
P51671; P50877; Q92490; Q92491;
01-CCT-1996 (REL. 34, CREATED)
01-CCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-NCV-1997 (REL. 35, LAST ANNOTATION UPDATE)
01-NCV-1997 (REL. 35, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NOT NEUTROPHILS.

-!- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS (ALPHA PROBABLY GENERATED BY ALTERNATIVE SPLICING.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMIL C-X-C) (CHEMOKINE CXC).

EMBL; U16752; G571508; -.

EMBL; L36033; G1220366; -.

EDB; 18DF; 28-JAN-98.

PDB; 28DF; 17-JUN-98.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
STROWAL CELL-DERIYED FACTOR 1 PRECURSOR (SDF-1)
STIMULATING FACTOR) (PBSF).
                                                                                                                                                                                                                                                              HOMO SAPIENS (HUMAN)
EUKARYOTA; METAZOA; (
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SHIROZU M., NAKANO T., SHINOHARA T., HONJO T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
EUTHERIA; PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3D-STRUCTURE.
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBO J. 16:6996-7007(1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CRUMP M.P., GONG J.H., LOETSCHER P., RAJARATHNAM K., AMARA ARENZANA-SEISDEDOS F., VIRELIZIER J.L., BAGGIOLINI M., SYKI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUBMITTED
   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00471; SMALL_CYTOKINES_CXC; FALSE_NEG.
CYTOKINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLARK-LEWIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRUCTURE BY NMR OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENOMICS 28:495-500(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   - ! - FUNCTION: CHEMOATTRACTANT ACTIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               69 QVCIDPKLKWIQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 EICLDPKQKWIQ
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                                                                                                                                                                                                                                                                                                   CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                  ROTHENBERG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19
93
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71
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 80; DB 1; 1
Pred. No. 1.59e-05
3; Mismatches
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STROMAL CELL-DERIVED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4B9911C7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ٦.
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                                                                                                                                  OWNBEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CRC32
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                       PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DATA
                                                                                                                               T.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
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                                                                                                                                  LEDER P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FACTOR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SYKES B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BETA)
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                                       Query Match
Best Local S
Matches
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EMBL; U34780; G1185440; ...
EMBL; D49372; G1552241; ...
EMBL; Z69291; E221070; ...
EMBL; Z75668; E251275; ...
EMBL; Z75669; E251278; ...
EMBL; Z75669; E251258; ...
EMBL; Z75669; E251258; ...
EMBL; Z92709; E329504; ...
                                                                                                                     DISULFID
DISULFID
VARIANT
                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE;
HEIN H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE; 97312708.

GARCIA-ZEPEDA E.A., ROTHENI
MORTON C.C., LUSTER A.D.;
GENOMICS 41:471-476(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        J. CLIN.
[3]
                                                                                                                                                                                                                                                                                                                                                                            BIOCHEM. BIOPHYS. RES. COMMUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE; 96189937.

PONATH P.D., QIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., SMITH H., SHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAMOS MACKAY C.R.;
                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TIFFANY H.L., MURPHY P.M., YOSHIE O
J. BIOL. CHEM. 271:7725-7730(1996).
                                                                                        VARIANT
                                                                                                                                                                                                                                                                                                                                                                                        BARTELS J.;
                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-SMALL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                   VARIANT
                                                                                                            VARIANT
                                                                                                                                                             SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE-LUNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE-PLACENTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BIOCHEM. BIOPHYS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHRISTOPHERS E., SCHROEDER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE; 96374440.
BARTELS J., SCHLUE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE-FORESKIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KITAURA M., NAKAJIMA T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                         σ
                                                                                                                                                                         NFLAMMATORY
                   71 DICADPKKKWVQ 82
 \vdash
                                                                                                                                                                                                                                                                                                                                   FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, I FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
SUBCELLULAR LOCATION: EXTRACELLULAR.
                                                                                                                                                                                                                                                                                                                          PTM: O-GLYCOSYLATED (PROBABLE).
                                                                                                                                                                                                                                                                                            C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                        SIMILARITY: BELONGS TO THE
                                                                                                                                                                                                                                                                                                                INDUCTION: BY THE-ALPHA,
EICLDPKQKWIQ
                                        Similarity
8; Conse
                                                                                                                                                                                PS00472; SMALL_CYTOKINES_CC; IL; CYTOKINE; CHEMOTAXIS; GLY
                                                                                                                                                                                                                                                                                                                                                                                              97445071.
SCHLUETER C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         96205964.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SCHLUETER C.,
                                                                                       RESPONSE;
1 23
24 97
32 57
32 73
7 7
3 23 23
51 51
79 79
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                                        Conservative
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                                               79.28;
                                                                               10732
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ROTHENBERG
A.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF
                                                                                                                                                                        POLYMORPHISM.
                                                                                                                                                                                                                                                                                                                                                                                              KULKE R., CHRISTOPHERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMUN.
                                                                               W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IMAI T., HARADA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RICHTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                J.M.;
                                                                                    EOTAXIN.

BY SIMILARITY.

BY SIMILARITY.

L -> P (IN CLONE 3

A -> T (IN CLONE 5

R -> S (IN CLONE 5

K -> R (IN CLONE 5
                                        Pred.
2; 1
                                                 Score 80;
Pred. No.
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HE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                            POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      225:1045-1051(1996).
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                                                                                                                                                                                GLYCOPROTEIN; SIGNAL;
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                                                DB 1; I
1.59e-05;
                                                                              CRC32;
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                                                                                       534).
53).
                                                         Length 97;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KULKE
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                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                               SCHROEDER J.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WANG J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SARAFI M.N.,
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Best Local S
Matches
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P46653;
01-NOV-1995
01-NOV-1995
01-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                P51495;
01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST ANOTATION
01-OCT-1996 (REL. 34, LAST ANOTATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; E
-!- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOCHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
-!- SUBUNIT: HOMODIMER (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                     MEDLINE; 96003435.
VILLINGER F.J., BRAR S.S., MAYNE A.E.,
J. IMMUNOL. 155:3946-3954(1995).
                                                                                                                                                                 SEQUENCE FROM N.A.
TISSUE-BLOOD;
                                                                                                                                                                                                        EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VILLINGER F.J., BRAR S.S., MAYNE A.E., CHIKKALA N., ANSARI A.A.;
J. IMMUNOL. 155:3946-3954(1995).
                                                                                       MEDLINE; 95355132
                                                                                                          SEQUENCE FROM N.A.
SPECIES-M.MULATTA;
                                                                                                                                                                                               EUTHERIA;
                                                                                                                                                                                                                  MACAQUE
                                                                                                                                                                                                                                                                                                                                                                                                                                             CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CERCOCEBUS TORQUATUS ATYS (RED-CROWNED MANGABEY) (SOOTY MANGABEY).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INTERLEUKIN-8 PRECURSOR (IL-8).
                                                                                                                                                                                                                          WACACA MULATTA (RHESUS MACAQUE), AND MACACA NEMESTRINA (PIG-TAILED
                                                                                                                                                                                                                                               INTERLEUKIN-8
                                                                                                                                                                                                                                                                                              IL8_MACMU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FISSUE-BLOOD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE; 96003435
                                                                                                                                                                                                                                                                                                                                                      75 ELCLDPKEPWVQ 86
                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
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                                                                                                                                                                                                                                                                                                                                   EICLDPKQKWIQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -X-C) (CHEMOKINE CXC).
U19839; G644796; -.
TE; PS00471; SMALL_CYTO
                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                   PS00471; SMALL_CYTOKINES_CXC; 1.
CHEMOTAXIS; INFLAMMATORY RESPONSE;
1 22 BY SIMILARITY.
                                                                                                                                                                                                PRIMATES
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36
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                                                                                                                                                                                                                                               PRECURSOR
                                                                                       BAGANOFF M.P.,
                                                                                                                                                                                                                                                                                                                                                                                                               ₽,
                                                                                                                                                                                                                                                                                               STANDARD;
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32, LAST SEQUENCE UI
34, LAST ANNOTATION
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61
77
                                                                                                          TISSUE-BLOOD;
                                                                                                                                                                                                                                                                                                                                                                                  79.28;
                                                                                                                                                                                                         CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                               11309
                                                                                                                                                                                                                                             (IL-8).
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                                                                            FRETLAND D.J.,
                                                                                                                                                                                                                                                                                                                                                                       Pred.
3; M
                                                                                                                                                                                                                                                                                                                                                                                                                       INTERLEUKIN-8.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                           Score 80;
                                                                                                                                                                                                                                                                                               PRT;
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                                                                                                                                                                                                                                                                                                                                                                                  80; DB 1; I
No. 1.59e-05;
                                                                                                                                                                                                                                                       ON UPDATE)
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                                                                                                                                                                                                                                                                                               101
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                                                                                                                                               CHIKKALA N.,
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                                                                            BOLANOWSKI M.A.;
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Best Local &
Matches
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EMBL; U19851; G644820; -.
EMBL; S78555; G1042228; -.
PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
PROSITE; PS00471; INFLAMMATORY RESPONSE;
BY SIMILARITY.
22
****PREPLEUKIN-8.
                                                            MCP1_CAVPO
Q08782;
01-NOV-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                            01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE CHEMOATTRACTANT PROTEIN 2).
                                                                                                                                                                                                    DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DISULFID
                    01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-UIL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1)
CHEMOATTRACTANT PROTEIN-1).
                                                                                                                                                                                                                                                     SIGNAL
CHAIN
                                                                                                                                                                                                                                                                                            EMBL;
                                                                                                                                                                                                                                                                                                                                                     HOSANG K.K., KNOKE I.I., KLAUDINY J.J., WEMPE F.F., SCHEIT K.K.;
BIOCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. MEDLINE; 95091716.
                                                                                                                                                                                                                                                                                                                                                                                                                        SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P49873;
01-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MCP2
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                                                                                                                                                                                                                                                                                                                                                                                                                 EUTHERIA;
                                                                                                                                                                                                                                         MOD_RES
                                                                                                                                                                                                                                                                          CYTOKINE;
                                                                                                                                                                                                                                                                                    PROSITE;
                                                                                                                                                                                                                                                                                                                                             -
                                                                                                                                  73 EVCADPQQKWVQ 84
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                                                                                                                                                             Local Similarity
les 8; Conser
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1 EICLDPKQKWIQ 12
                                                                                                                                                                                                                                                                                                                       FUNCTION: CHEMOTACTIC FACTOR CAN BIND HEPARIN.
SUBUNIT: MONOMER OR HOMODIME!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23
                                                                                                                                                                                                                                                                                                                SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ELCLDPKEPWVQ 86
                                                                                                                       EICLDPKQKWIQ
OR MCP1.
PORCELLUS (GUINEA PIG).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           h 79.2%;
Similarity 66.7%;
8; Conservative
                                                                                                                                                                                                                                                                                                     (CHEMOKINE CC).
                                                                                                                                                                                                                                                                         CHEMOTAXIS;
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66.7%;
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2;
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3; 1
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BY SIMILARITY.

MONOCYTE CHEMOTACTIC PROTEIN

CARBOXYLIC ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score
                                                                                                                                                                                                             BY SIMILARITY.
BY SIMILARITY.
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BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                        VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                        HEPARIN-BINDING;
                                                                                                                                                                                                     B7620BCF CRC32;
                                                                                                                                                                                                                                                                                                              MER; IN EQUILIBRIUM (BY INTERCRINE BETA FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   77D78AA0 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            re 80; DB 1; Le
1. No. 1.59e-05;
Mismatches 1;
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2.72e-05;
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                                                                                                                                                                                Length 99;
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                                                                                                                                                                                                                                                                        INFLAMMATORY RESPONSE
                                                                                                                                                                                                                                                                                                                                           MONOCYTES. THIS PROTEIN
                                (MONOCYTE
                                                                                                                                                               Indels
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(SMALL CYTOKINE
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        TEXP. MED. 185:99-109(1997).

C: FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES, C: FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES, C: FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTE ACTIVE CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC INFLAMMATION.

C: INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A PLAY A PLOY AND THE SALIVARY GLANDS CONTAINING LYMPH NODES AND C: INSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES, CHEMOTION: ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES, CHEMOTION: BY IFN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).

C: INDUCTION: BY IFN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).

C: C-C) (CHEMOKINE CC).

REABL; U50712; G1477582; -.

EMBL; U50712; G1477582; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local &
Matches
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Q62401;
Q1-NOV-1997
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DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
EUTHERIA; RODENTIA.
[1]
                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
MEDLINE; 97079149.
JIA G.-Q., GONZALO J.A., LLOYD C.,
WERSHIL B.K., GUTIERREZ-RAMOS J.C.,
J. EXP. MED. 184:1939-1951(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
STRAIN-Z; TISSUE-S
MEDLINE; 93267104.
                                                                                                                                                                                                                                                                                                                               SARAFI M.N.,
LUSTER A.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CHEMOKINE).
SCYA12 OR MCP5
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01-NOV-1997 (REL.
15-JUL-1998 (REL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                             MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM
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-!- SUBUNIT: MONOMER OR
-!- SIMILARITY: BELONGS

    IMMUNOL.

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L04985; G349821; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   h 78.2%;
Similarity 66.7%;
8; Conservative
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                                                                                                                                                                                                                                                                                                                                                          GARCIA-ZEPEDA E.A.,
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TRAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   , LAST SEQUENCE UPDATE)
, LAST ANNOTATION UPDATE)
PROTEIN 5 PRECURSOR (MCP-5) (MCP-1 RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CREATED)
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Pred. No.
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2; 1
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BY SIMILARITY.
BY SIMILARITY.
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22FAD257 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BY SIMILARITY.
MONOCYTE CHEMOTACTIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                            INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                       MACLEAN J.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KREMER L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 1; Leuy
. 2.72e-05;
---ches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 104 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TETRAPODA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 120;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  E
                                                                                                                                                                                                                                                                                                                                                          CHARO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                L., MARTINEZ A.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
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                                                                                                                                                                                                                                                                                                                                                          Η.Ψ.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BUT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                            MONOCYTES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NOT
                                                                                                                                         ODES AND NODES,
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                                                                                                                                                                                                                                                                                                              AN MEDLINE; 94157409.

AN JOSE P.J., GRIFFITHS-JOHNSON D.A., COLLINS P.D., WALSH D.T.,
AN MOOBEL R., TOTTY N.E., TRUONG O., HSUAN J.J., WILLIAMS T.J.;

AL J. EXP. MED. 179:881-887(1994).

C. -!- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN

DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT

C. -!- FUNCTION: INFLAMMATORY REACTIONS.

C. -!- SUBCELLULAR LOCATION: EXTRACELLULAR.

C. -!- TISSUE SPECIFICITY: LUNG.

C. -!- TISSUE SPECIFICITY: LUNG.

C. -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE

C. -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE

C. --- CLEMOKINE CC).

REMBL; U18941; G687556; -.

REMBL; W17603; G602552; -.

REMBL; P193500; INCA.

RESP, P13500; INCA.
                                                                                     PROSITE; PS00472; SMALL_CYTOKINES_CG; 1.
EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL SIGNAL 24 96 EOTAXIN.
CHAIN 24 96 EOTAXIN.
DISULFID 31 56 BY SIMILARITY.
DISULFID 32 72 BY SIMILARITY.
CARBOHYD 33 93 POTENTIAL.
CONFLICT 88 88 D-> G (IN REF. 2).
SEQUENCE 96 AA; 10753 MW; DD28C7E5 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
    Matches
                            Query Match
Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
DISULFID
SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JUN-1994 (REL.
01-OCT-1996 (REL.
15-JUL-1998 (REL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
MEDLINE; 95091818.
JOSE P.J., ADCOCK I.M.,
WELLS T.C., WILLIAMS T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00472; SMALL_CYTOKINES_CC; CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN-HARTLEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 24-96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BIOCHEM. BIOPHYS. RES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ROTHENBERG M.E., LUSTER A.D., LIL
J. EXP. MED. 181:1211-1216(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE; 95173589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAVIA PORCELLUS (GUINEA PIG).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EOTAXIN PRECURSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P80325;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EOTA_CAVPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2
    Local Similarity 
nes 8; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   72 EICADPKEKWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 EICLDPKQKWI 11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            104 AA;
       Conservative
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34
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE-LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          36, LAST ANNOTATION UPDATE)
(EOSINOPHIL CHEMOTACTIC PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29, CREATED)
34, LAST SEQUENCE UPDATE)
36, LAST ANNOTATION UPDAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  104
58
74
                          74.38;
72.78;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11659
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S. COMMUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GRIFFITHS-JOHNSON D.A., BERKMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ¥.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         POWER C.A.;
MUN. 205:788-794(1994).
  Score 75; DB 1; I
Pred. No. 2.27e-04;
1; Mismatches 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 77; DB 1; I
Pred. No. 7.91e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; INFLAMMATORY RESPONSE.
BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ?;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LILLY C.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08FA6C35 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A
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                                             Length 96;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 104;
    2
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                                                                                                                                                                                                                                                                             SIGNAL;
    Indels
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Gaps
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RESULT 27

IN MILA_RAT STANDARD; PRT; 92 AA.

ID MILA_RAT STANDARD; PRT; 92 AA.

ID MILA_RAT AA, CREATED)

DT 01-CCT-1996 (REL. 34, LAST SEQUENCE UPDATE)

DT 01-CCT-1996 (REL. 34, LAST SEQUENCE UPDATE)

DT 01-CCT-1996 (REL. 35, LAST ANNOTATION UPDATE)

DT 01-CCT-1996 (REL. 36, LAST SEQUENCE UPDATE)

RE STANDALOR END M. A.

RE STROMEN. ACCOMMUN. 211:289-295(1995).

RA SHIM. M. GODLESKI J. J. PAULAUSKIS J.D.;

RA SHIM. M. GEVANS; TISSUE-LUNG;

RA SHIM. M. GEVANS; TISSUE-LUNG;

RA SHAIN-LONG EVANS; TANANO K., SHIBATA F., KATO H.;

RA SHIM-LONG EVANS; TISSUE-LUNG;

RA SHAIN-LONG EVANS; TISSUE-LUNG;

RA SHAIN
     RESULT
ID MC
AC P8
DT 01
DT 01
DT 15
DE MC
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Best Local
                                                                                                                                                                                                                                                                                                                                                           Matches
                              MCPB_BOVIN STAN
P80343;
01-FEB-1995 (REL. 3
01-FEB-1995 (REL. 3
15-JUL-1998 (REL. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAKAGAWA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;
BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948 (1996).

-I- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES
HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPHILS
BASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LUNG TNF-ALPHA
PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AN
MAY FUNCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE
PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGULATES VASCULAR
ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFLUX. THIS PROTEIN
01-FEB-1995 (REL. 31, CREATED)
01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
15-UL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1B (MCP-1B) (FRAGMENT).
                                                                                                                                                                                                                                             71 QICADPKETWVQ
:|| |||: |:|
1 EICLDPKQKWIQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          71 ICADPKKKWVQ 81
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                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                         STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                    73.3%;
                                                                                                                                                                                                                                                                                                                                                     Score 74;
Pred. No. 3; Misma:
                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                    No. 3.84e-04;
                                                                                                                                           74
                                                                                                                                                                                                                                                                                                                                                                                                                DB 1;
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                                                                                                                                                                                                                                                                                                                                                                                                             Length 92;
                                                                                                                                                                                                                                                                                                                                                           Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EOSINOPHILS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INJURY AND
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RESOLD TO THE RE
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Best Local
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DISULFID
DISULFID
SEQUENCE
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MEDLINE; 97053697.

KIM K.-S., RAJARATHNAM K., C
FEBS LETT. 395:277-282(1996)
-!- FUNCTION: CHEMOTACTIC FA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHEMOATTRACTANT PROTEIN 2) (HC14).
SCYAB OR SCYA10 OR MCP2.
HOMO SAPIRMS (HUMAN).
EUKARYOTA: METAZOA; CHORDATA; VERT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      P80075; P78388;
01-DEC-1992 (REL. 24, CREATED)
01-DEC-1997 (REL. 35, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE; 95034774.

PROOST P., WUYTS A., LENAERTS J.-F
BIOCHEMISTRY 33:13406-13412(1994).
                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE OF 23-99 FROM N.A. MEDLINE; 91207938. CHANG H.C., HSU F., FREEMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A., MEDLINE; 97237052.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BOS TAURUS EUKARYOTA;
                                                                                                                                                                                                                                                                       SEQUENCE OF 26-99.
TISSUE-OSTEOSARCOMA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MCP2_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -
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                                                                                                                                                                                                                VAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENOMICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VAN
                                                                                                                       SUBUNIT.
                                                                                                                                                                                                                                              MEDLINE;
                                                                                                                                                                                                                                                                                                                                                             INT. IMMUNOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BIOCHEM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-BONE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.,
                                                                                                                                                         5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     48
                                                                                                                                                                              N DAMME J., PROOST P., LENAERTS J.-P., EXP. MED. 176:59-65(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ٢
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COILLIE E., FROYEN F., NOMIYAMA H., MIURA R., AELST I., VAN DAMME J., OPDENAKKER G.; CHEM. BIOPHYS. RES. COMMUN. 231:726-730(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COILLIE E., FITEN P., DAMME J., OPDENAKKER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ATTHE RELEASE OF GELATINASE B. THIS PROTEIN C PTM: THE N-TERMINAL IS BLOCKED.
SIMILARITY: BELONGS TO THE INTERCRINE BETA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EICLDPKQKWIQ 12
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                                                                                                                                                                                                                                     92308855.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (CHEMOKINE CC).
PS00472; SMALL_CYTOKINES_CC;
CHEMOTAXIS; HEPARIN-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97224420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 40:323-331(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIMATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ARTIODACTYLA.
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METAZOA; CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1
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1AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                             1:388-399(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     59
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50
8360
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58.3%;
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                                                                                                                                                                                                                                                                                                                                                                                     FREEMAN G.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AND VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENAERTS J.-P., VAN DAMME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               G.;
      FACTOR THAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MAKYIMON
                                                             CLARK-LEWIS I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BY SIMILARITY.
BY SIMILARITY.
66172F08 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 73; DB 1; I
Pred. No. 6.45e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GLN-69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GLN-69.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                           GRIFFIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        н.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99
      ATTRACTS MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SAKAKI Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MIURA R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ₽
                                                                                                                                                                                                             OPDENAKKER
                                                                                                                                                                                                                                                                                                                                                                                     J.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TETRAPODA;
                                                             SYKES B.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S MONOCYTES, BUT NOT ACTIVITY. ALSO INDUCES CAN BIND HEPARIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 74;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ψ
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                                                                                                                                                                                                                                                                                                                                                                                           REINHERZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MIURA R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FITEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ۳.
   LYMPHOCYTES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
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WELLS T.N.C., PEITSCH M.C.;

J. LEUKOC. BIOL. 61:545-550(1997).

J. LEUKOC. CHEMOTACTIC FACTOR THAT ATTRACTS LY:

MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN CONTROL FOLLICLES IN LYMPH NODES.

CONTROL SPECIFICITY: EXPRESSED AT HIGH LEVELS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 6; Consei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOD_RES
DISULFID
DISULFID
VARIANT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                          MIP4_HUMAN
P55774;
                                                                                                                                                                                                                         MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                     01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
15-UUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
15-UUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND ACTIVATED MEGULATED CHEMOKINE) (CC CHEMOKINE PARC) (ALTERNATIVE ACTIVATED MACROPHAGE ASSOCIATED CC CHEMOKINE 1) (AMAC-1).
SCYA18 OR MIP4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; X99886; E279930;
EMBL; X10802; E294088;
HSSP; P13500; 1MCA.
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                                                                                                                                                                                    HIESHIMA K., IMAI T., BABA M., SHOUDAI K., ISHIZUKA K.,
NAKAGAWA T., TSURUTA J., TAKEYA M., SAKAKI Y., TAKATSUKI K.,
MIURA R., OPDENAKKER G., VAN DAYME J., YOSHIE O., NOMIYAMA H.;
J. IMMUNOL. 159:1140-1149(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CYTOKINE;
                                                                                                MEDLINE; 97275308.
                                                                                                                                        SUBMITTED
                                                                                                                                                                                                                                     TISSUE-AORTA, AND MEDLINE; 97376836
                                                                                                                                                                                                                                                                                     LI H., RUBEN S.
PATENT NUMBER (
                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                    EUTHERIA; PRIMATES
                                                                                                                                                                                                                                                                                                                                                EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MIM;
                                                                                                                                                  KODELJA V.
                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                            HOMO SAPIENS (HUMAN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INTESTINE AND PERIPHERAL BLOOD CELLS. INTERMEDIATE LEVELS SEEN IN THE HEART, PLACENTA, LUNG, SKELETAL MUSCLE, THYMUS, COLON, OVARY, SPINAL CORD AND PACKTERS. LOVELS SEEN IN THE BRAIN, LIVER, SPLEEN AND PROSTATE.

INDUCTION: BY INTEREERON GAMMA, MITOGENS AND INTERLEUKIN-1.

SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM. THE SMALL TISSUE SPECIFICITY: HIGHEST EXPRESSION FOUND IN THE SMALL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BASOPHILS AND EOSINOPHILS. MAY PLAY A ROLE IN INFLAMMATORY HOST RESPONSES. THIS PROTEIN CAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EICLDPKQKWIQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           602283;
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                                                                                                                                                               FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PS00472;
                                                                                                                                     ., MUELLER C., (AUG-1997) TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PS00472; SMALL_CYTOKINES_CC; CHEMOTAXIS; SIGNAL; HEPARIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99
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34
59
                                                                                                                                                               N.A.
                                                                                                                                                                                                                                                 AND LUNG;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
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                                                                                                                                                                                                                                                             AND PARTIAL SEQUENCE
                                                                                                                                                                                                                                                                                                                                              CHORDATA; VERTEBRATA; TETRAPODA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23
24
75
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                                                                                                                                     POLITZ O., HAKIY N., ORFANOS EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Œ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score
Pred.
5; M
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PYRROLIDONE CARBOXYLIC
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INES_CC; 1.
HEPARIN-BINDING;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ne 73; DB 1; Le
1. No. 6.45e-04;
Mismatches 1.
                                                                                                                                                  HAKIY N.
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                            LEVELS
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                                                 LYMPHOCYTES BUT IN B CELL MIGRAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFLAMMATORY RESPONSE;
                            H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NEOPLASIA AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
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                          THE
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H
                          LUNG.
                                                  MIGRATION
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                          A LOWER
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Search completed: Thu Apr 1 07:44:22 1999 Job time: 8 secs.
                                                                                                                                                                                                                                                                                                                                        LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NODES,

THYMUS AND APPENDIX.

C -!- INUCTION: BY LIPOPOLYSACCHARIDE (LPS).

C -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE CC).

C -() (CHEMOKINE CC).

C EMBL; ABOO0221: D1022520; -.

CREBL; Y13710; E321838; -.

CREBL; Y13710; E321838; -.

DR PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.

REMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.

CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.

PT SIGNAL 1 20

MACROPHAGE INFLAMMATORY PROTEIN 4.

PT DISULFID 30 54 BY SIMILARITY.

SO SEQUENCE 89 AA; 9849 MW; 052AA3DC CRC32;
                                                                                                              68 QICADPNKKWVQ 79
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1 EICLDPKQKWIQ 12
                                                                                                                                                                                                                             Score 72; DB 1; Length 89; Pred. No. 1.08e-03; Indels 3; Mismatches 2; Indels
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Ş 멍 Query Match 71.3%; Best Local Similarity 58.3%; Matches 7; Conservative

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PRELIMINAKI,

057411;

057411;

057411;

01-JUN-1998 (TREMBLREL. 06, CREATED)

01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)

01-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)

1.YMPHOTACTIN PRECURSOR.

GALLUS GALLUS (CHICKEN).

GALLUS GALLUS (CHICKEN).

EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;

EUKARYOTA; METAZOA; PHASIANIDAE; PHASIANINAE; GALLUS.
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062812 PRELIMINARY;
062812; PREMBLREL 07
01-AUG-1998 (TREMBLREL 07
01-AUG-1998 (TREMBLREL 07
01-AUG-1998 (TREMBLREL 07
1.NTERLEUKIN-8 (FRAGMENT).
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O35188;
O35188;
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                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                        SIGNAL
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EUKARYOTA; METAZOA; CHORDATA;
PERISSODACTYLA; EQUIDAE; EQUUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE-SPLEEN;
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                                                                                                                                                                            72 ICVHPEQKWVQ 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              75
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Similarity .63.6%;
7; Conservative
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larity 58.3%;
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Pred. No. 2.39e-03;
2; Mismatches 2
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LAST ANNOTATION UPDATE)
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LYMPHOTACTIN.
3290101C CRC32;
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No. 1.78e-04;
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O1-JUN-1998 (TREMBLREL. 06, CR
O1-JUN-1998 (TREMBLREL. 06, LA
O1-NOV-1998 (TREMBLREL. 08, LA
B LYMPHOCYTE CHEMOATTRACTANT B
MUS MUSCULUS (MOUSE).
EUKARYOTA; ETAZOA; CHORDATA;
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EMBL; AF010588; G2317698; -
MGD; MGI:1097153; SCYD1.
PFAM; PF00048; 118; 1.
SEQUENCE 395 AA; 42098 M
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035933;
01-JAN-1998
01-JAN-1998
01-NOV-1998
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ZLOTNIK A., BAZAN J.F.;
SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA
EMBL; U92565; G2459677; -.
PFAM; PF00048; 118; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FRACTALKINE.
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-JAN-1998 (TREMBLREL.
01-JAN-1998 (TREMBLREL.
01-NOV-1998 (TREMBLREL.
NEUROTACTIN.
SEQUENCE FROM N.A. STRAIN=C57BL/6J;
                                                             SCIUROGNATHI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
STRAIN-BALB/C; TISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. MEDLINE; 97320499.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MUS MUSCULUS
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Similarity 63.6%;
7; Conservative
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METAZOA; CHORDATA; VE
MI; MURIDAE; MURINAE;
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8 (TREMBLREL.
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larity 63.6%;
Conservative
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                                                             MURIDAE;
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                                                                              CHORDATA;
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                                                             MURINAE;
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, LAST ANNOTATION UNT BLC.
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Pred. No. 2.:
3; Mismatcl
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Pred. No. 2.39e-03;
3; Mismatches 1
                                                                            VERTEBRATA;
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E; MUS.
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                                                                                                                                                                                                                                                                                                                                                                                                            DB 11;
2.39e-03;
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                                                                                MAMMALIA;
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Best Local (
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Best Local
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                                                                                                                                                                                                                   SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

UTANS-SCHNEITZ U., LOREZ H., KL
LESSLAUER W.;

"A novel rat CC chemokine, iden
display, is upregulated in brai
J. NEUROIMMUNOL. 0:0-0(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE; 98146056.

GUNN M.D., NGO V.N., ANSEL K.M., E
WILLIAMS L.T.;
"A B-cell-homing chemokine made in
Burkitt's lymphoma receptor-1.";
NATURE 391:799-803(1998).
EMBL; AF044196; G2911374; ...
SEQUENCE 109 AA; 11927 MW; BB6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-JUL-1997
01-JUL-1997
01-NOV-1998
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01-NOV-1998
01-NOV-1998
CC CHEMOKINE
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000175
000175;
SUBMITTED (JUL-1998) TO EMBL/GENBANK/DDBJ EMBL; AF053313; G3551819; -. EMBL; AJ007862; E1312757; -. SIGNAL. 1 27 POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                      MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
PATEL V.P., KREIDER B.
NARDELLI B., PIPPALLA
GENTZ R., GAROTTA G.;
                                                                                                                                       SEQUENCE FROM N.A. VILLARES R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          089093
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U85768; G1916252; -.
PF00048; i18; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
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AA; 13119
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58.3%;
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54.5%;
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Pred. No. 1.79e-02;
3; Mismatches
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LAST SEQUENCE UI
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
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inflammation.";
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THOTAKURA
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1.09e-02;
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MUS.
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                                                                                                             DATA
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                                                                                                                                                                                                                                                                                                                                   SILVA J.,
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Best Local Similarity
Matches 6; Conser
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01-UUL-1997 (TREMBLREL. 04, LAS
01-NOV-1998 (TREMBLREL. 08, LAS
BETA CHEMOKINE EXODUS-2.
BUKARYOTA; METAROA; CHORDATA; V
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NISHIMURA M., KAKIZAKI M., NOM
SUBMITED (AUG-1997) TO EMBL/G
EMBL; U88320; G2196920; EMBL; AF001979; G2624925; -
EMBL; AB002409; D1022673; -
EMBL; AB002409; D1022673; -
PFAM; PF00048; 118; 1
SEQUENCE 134 AA; 14646 MW;
                                                                                                                                                                                                                                JLT 9 1 088430; 088430; 01-NOV-1998; 01-NOV-1998; 01-NOV-1998; 01-NOV-1998; 01-NOV-1998; 01-NOV-1098; 01-NOV-
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000585;
01-JUL-1997
01-JUL-1997
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SEQUENCE
TISSUE-LIVER;
MEDLINE; 98353531.
SCHANIEL C., PARDALI E., SALLUSTO F., SPELETA SCHANIEL T., ANDERSSON J., MELCHERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Identification and characterization containing six conserved cysteines."; J. IMMUNOL. 159:1589-1593(1997).
                                                                                                                     SEQUENCE FROM N.A.
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                                                                                                                                                                            RODENTIA;
                                                                                                                                                                                                         EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAGIRA M.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73
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                                                                                                                                                                                                      CHEMOKINE ABCD-1.
S MUSCULUS (MOUSE).
KARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 ICLDPKQKWI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EICLDPKQKWIQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ELCADPKELWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                n 66.3%;
Similarity 58.3%;
7; Conservative
                                                                                                                                                                            SCIUROGNATHI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IMAI
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GIREMBLREL.
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llarity 60.0%;
Conservative
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10826 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HIESHIMA K., KUSUDA J., RIDANPAA
AKI M., NOMIYAMA H., YOSHIE O.;
TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.
14646 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TO EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                    888
                                                                                                                                                                         NDATA; VERTEBRATA; MAMMALIA; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL/GENBANK/DDBJ
                                                                                                                                                                                                                                                                                    CREATED)
LAST SEQUENCE UP
LAST ANNOTATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 67; DI
Pred. No. 2:
3; Mismatc
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LAST ANNOTATION UPDATE)
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Pred. No. 2.94e-02;
3; Mismatches 1
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                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         e 67; DB 4; Le l. No. 2.94e-02; Mismatches 2.
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           SPELETAS M.,
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ON UPDATE)
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           ROLINK A.G.
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Best Local S
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Q14745; PRELIMINARY;
Q14745; (TREMBLREL. C
01-NOV-1996 (TREMBLREL. C
01-NOV-1998 (TREMBLREL. C
01-NOV-1998 (TREMBLREL. C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCIVATED MURINE B lymphocytes and dendritic cells produce CC chemokine which acts selectively on activated T cells."; J. EXP. MED. 188:451-463(1998).
EMBL; AF052505; G3378116; -. SEQUENCE 92 AA: 10000
                                                  PFAM; PF00048; i18;
SIGNAL.
NON_TER 1
SIGNAL <1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-AUG-1998
01-AUG-1998
01-AUG-1998
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073912
073912;
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GALLUS GALLUS (CHICKEN).
GALLUS GALLUS (CHICKEN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
MECCMATHAE: GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
                  CHAIN
NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    X 60
                                                                                                                                                                                                                                                                                                        LD78 ALPHA BETA PRECURSOR (FRAGMENT) HOMO SAPIENS (HUMAN). EUKARYOTA; METAZOA; CHORDATA; VERTEB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CHAIN
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TISSUE-MACROPHAGE LIKE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  X60
 SEQUENCE
                                                                                                                        EMBL; D63785; G961440; PROSITE; PS00472; SMAL
                                                                                                                                                             SUBMITTED (AUG-1995) TO EMBL/GENBANK/DDBJ
                                                                                                                                                                                               ISHIZUKA K., IGATA-YI
KATSURAGI S., KIN Y.,
                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                        CATARRHINI;
                                                                                                                                                                                                                                  TISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity 54.5%;
nes 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         75
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21
104 AA;
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(TREMBLREL.
(TREMBLREL.
 80
                                                                                                                                                                                                                                                                                        HOMINIDAE;
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17
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                                                                                                                          SMALL_CYTOKINES_CC;
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104
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54.5%;
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                                                                                                                                                                                                                                                                                                       CHORDATA; VERTEBRATA;
                                                                                                                                                                                               R., NARUSE
OHMOTO Y.,
                                                                                                                                                                                                                                                                                        HOMO.
                                                                                                                                                                                                                                                                                                                                                   01, CREATED)
01, LAST SEQUENCE UPDATE)
08, LAST ANNOTATION UPDATE)
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pred.
3; M
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Pred. No. 7.83e-02;
2; Mismatches 3
                                   POTENTIAL.
LD78 ALPHA
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 3F87F1C6 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               40C2EF8A CRC32;
                                                                                                                                                                                               K., NAKASHIMA
NOMIYAMA H., 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
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                                   ALPHA BETA
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4.81e-02;
-hes 2;
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                                                                                                                                                                                               Υ.
                                                                                                                                                                                           OHUCHI K.,
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Matches
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Best Local
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Query Match
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P97884;
01-MAY-1997 (TREMBLREL. 03, C
01-MAY-1997 (TREMBLREL. 03, L
01-NOV-1998 (TREMBLREL. 08, L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q99664;
Q99664;
Q1-MAY-1997
Q1-MAY-1997
Q1-NOV-1998
                                                                                                                                            SEQUENCE FROM N.A.
STRAIN-SPRAGUE-DAWLEY;
KELNER G.S., MACIE-ELEWSKI-LENOIR D., LEE E.D., MAKI R.A.;
SUBMITTED (FEB-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                       "Cloning and characterization of exode BLOOD 89:3315-3322(1997).
EMBL; U64197; G1778717; ".
PROSITE; PSO0472; SMALL_CYTOKINES_CC; PFAM; PF00048; i18; 1.
SEQUENCE 95 AA; 10691 MW; 1526B4C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHEMOKINE EXODUS.
                    SEQUENCE
                                    display, is upregulated in br:
J. NEUROIMMUNOL. 0:0-0(1998).
EMBL; U90447; G1899246; --.
EMBL; AF053312; G3551817; --.
PFAM; PF00048; il8; 1.
                                                                                                      SEQUENCE FROM N.A. STRAIN-FISHER 344; UTANS-SCHNEITZ U.,
                                                                                                                                                                                              SCIUROGNATHI;
                                                                                                                                                                                                      RATTUS NORVEGICUS (RAT).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                          CC CHEMOKINE EXODUS
                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE; 97275143.
HROMAS R., GRAY P.W.,
BELL G.I., TAKEDA J.,
KLEMSZ M.J.;
                                                                                     'A novel rat CC chemokine,
                                                                                               ESSLAUER W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       y Match 62.4%;
Local Similarity 41.7%;
hes 5; Conservative
                                                                                                                                                                                                                                                                                                                       72 VCANPKQTWV :| :|| |:
                                                                                                                                                                                                                                                                                                                                                 Local Similarity tes 5; Conser
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                   Conservative
                   AA;
                                                                                                                                                                                             MURIDAE;
                                                                                                                                                                                                                                                                                                                                81
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                                                                                                       TISSUE-BRAIN;
LOREZ H., KLI
                   10875 MW;
                                                                                                                                                                                                                                                                                                                                                            62.48;
50.08;
 62.4%;
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ARONICA
                                                                                                                                                                                              MURINAE;
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                                                                            identified by targe brain inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 63;
Pred. No.
4; Misma
                                                                                                                                                                                                                                                                                                                                                  Pred.
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LAST ANNOTATION UPDATE)
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LAST ANNOTATION UPDATE)
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                                                                                                        KLINKERT
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                   3FC09DD8 CRC32;
                                                                                                                                                                                              RATTUS
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 63;
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                                                                                                        W.E.F.,
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DB 11;
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                                                                                                                                                                                                       MAMMALIA;
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BROXMEYER
                                                                                                                                                                                                                                                                                                                                                                                                                                                   FIFE K.,
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Best Local S
Matches
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015467 PRELIMINARY;
015467;
01-JAN-1998 (TREMBLREL. 05, 01-JAN-1998 (TREMBLREL. 05, 01-NOV-1998 (TREMBLREL. 08, 01-NOV-1998 (TREMBLREL. 08, 01-NOV-10DUCIBLE CHEMOKINE.
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Matches
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043927
                                                                                                      043927;
01-JUN-1998
01-JUN-1998
01-NOV-1998
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SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAPOLITANO M., SPINETTI G., GAETANO C., CAPOGROSSI C.M.; SUBMITTED (OCT-1997) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; AJ002211; E1249325; -. EMBL; AF044197; G2911376; -. EMBL; AF024894; G3169814; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LEGLER D.F., LOETSCHER M., STUBER ROOS R. BAGGIOLINI M., MOSER B.;
"B cell-attracting chemokine 1, a human C lymphoid tissues, selectively attracts B J. EXP. MED. 187:655-660(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.

MEDLINE; 98146055.

GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H.

WILLIAMS L.T.;

"A B-cell-homing chemokine made in lymphoid
Burkitt's lymphoma receptor-1.";

MATURE 391:799-803(1998).
SEQUENCE FROM N.A
                                   SEQUENCE FROM N.A.
HEDRICK J.A., HELMS A.,
SUBMITTED (NOV-1997) TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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RYOTA; METAZOA; CHORDATA;
RRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ICLDPKQKWI 11
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larity 54.5%;
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109
12664
                                 GORMAN D., ZLOTNIK A.;
EMBL/GENBANK/DDBJ DATA BANKS
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2; M
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POTENTIAL.
BE5A46BC CRC32;
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                                                                                                                                VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
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d. No. 2.05e-01;
Mismatches 3;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 109;
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Best Local Similarity

Matches 5; Conser
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093442
093442; PRELIMINARY;
0-93442; (TREMBLREL 08, C
01-NOV-1998 (TREMBLREL 08, L
01-NOV-1998 (TREMBLREL 08, L
 093238;
093238;
01-NOV-1998
01-NOV-1998
01-NOV-1998
                                                                                                                                                                                                                                                                                                                         SIGNAL
CHAIN
                                                                                                                                                                                                                                                                                                                                                                                               NAJAKSHIN A.M., MECHETINA L.V., ALABYEV B.Y., TARANIN A.V. "Identification of the interleukin 8 homologue in lamprey fluviatiles; early evolutionary divergence of chemokines SUBMITTED (JUL-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LFCA-1 PROTEIN PRECURSOR.

LAMPETRA FLUVIATILIS (RIVER LAMPREY).

EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; CEPHALASPIDOMORPHI;

PETROMYZONTIFORMES; PETROMYZONTIDAE; LAMPETRA.
                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
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EMBL; AB007454; D1024963; -.
EMBL; AF088219; G3719365; -.
EMBL; AF055467; G3395776; -.
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SHOUDAI K., HIESHIMA K., FUKUDA S.,
YOSHIE O., NOMIYANA H.;
BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).
                                                                                                                                                                                                                                                                                                                                                              SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                    EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE=LEUKOCYTES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Structure of a region SUBMITTED (AUG-1998) To
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
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(TREMBLREL.
                                                                                                                                                                                                                                                                                                     101 AA;
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                                                                            PRELIMINARY;
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larity 41.7%;
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                                                                                                                                                                                                                                             Score 61;
Pred. No.
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Pred. No.
5; Misma
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      re 63; DB 4; Le
d. No. 2.05e-01;
Mismatches 2;
                                                                                                                                                                                                                               Mismatches
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chemokine, with
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5.27e-01;
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EMBL; AF002987; G2196753; -.

PROSITE; PS000208; ZINC_FINGER_C2H2; 4.

PFAM; PF00096; Zf-C2H2; 5.

ZINC-FINGER; METAL-BINDING; DNA-BINDING.

SEQUENCE 584 AA; 64756 MW; B1DE5647 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             002426;
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CYPRINUS CARPIO (COMMON CARP).

EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTERYGII;

TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINOIDEA;

CYPRINIDAE; CYPRININAE; CYPRINUS.
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"FUJIKI K., NAKAO M., SHIN D., YANO T.;

"CDNA cloning of a carp CC chemokine homologous
"Structure of a region of 181 kb containing five CC of SUBMITTED (AUG-1998) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                             SUBMITTED
                                                                                                                                                                                              JANG
                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                       CATARRHINI; HOMINIDAE;
                                                                                                                                                                                                                                                                                                              HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
                                                                                                                                                                                                                                                                                                                                                                                                                    RANTES PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CIONA INTESTINALIS.
EUKARYOTA; METAZOA;
CIONIDAE; CIONA.
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SUBMITTED (JAN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                 NOMIYAMA
                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 397 VCLDSKTTWRQ 407
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
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                                                                                                                                                                                           J.S.
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                                                              Η.,
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                                                                                                                                                          KIM B.E.;
(JAN-1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               101 AA;
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                                                                                                                                                          or
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08,
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LAST SEQUENT LAST ANN
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Pred.
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Pred. No.
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ANNOTATION UPDATE)
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No. 8.39e-01
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8.39e-01;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        91
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                                                                                                                                                          DATA BANKS
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                             five CC chemokine
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AC P70357;
DT 01-FEB-1997
DT 01-FEB-1997
DT 01-NOV-1998
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Matches
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Best Local
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                                                                                                                                                                        ULT 21
Q98158; O12569;
Q98158; O12569;
Q1-FEB-1997 (TREMBLREL. (
01-JUL-1997 (TREMBLREL. (
01-JUL-1998 (TREMBLREL. (
01-NOY-1998 (TREMBLREL. (
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MUS (MOUSE).
MUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
EUKARYOTA; MURIDAE; MURINAE; MUS.
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DISULFID
DISULFID
SEQUENCE
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SEQUENCE
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1 23 POTENTIAL
                                                                                                  KAPOSI'S SARCOMA-ASSOCIATED HERPI
VIRUSES; DSDNA VIRUSES, NO RNA S:
GAMMAHERPESVIRINAE; RHADINOVIRUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; U63146; G1515450; -. PROSITE; PS00213; LIPOCALIN; 1. PFAM; PF00061; lipocalin; 1.
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MEDLINE; 97094384.
MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;
"Molecular mimicry of human cytokine and cytokine response pathway
                                                               SEQUENCE FROM
                                                                                                                                                            ORF K6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-B6/CBAFIJ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PLASMA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                         176 ELCLERQYRWIE
|:||: :||:
1 EICLDPKQKWIQ
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Similarity 33.3%;
4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
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                                        FROM N.A.
97094384.
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91 AA;
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(TREMBLREL. 02,
(TREMBLREL. 08,
                                                                                                                                                                                                                                                    PRELIMINARY;
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201
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91
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08,
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                                                                                                                RNA STAGE; HERPESVIRIDAE;
                                                                                                                                                                                                                                                                                                                                                                                                                      Score 59;
Pred. No.
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pred. No. 1.33e+00;
5; Mismatches
                                                                                                                                                                        CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDAT
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PLASMA RETINOL-BINDING
BY SIMILARITY.
BY SIMILARITY.
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CF404FAD CRC32;
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1.33e+00;
2 3;
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Best Local :
Matches
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01-NOV-1996 (TREMBLREL. 0
01-NOV-1996 (TREMBLREL. 0
01-NOV-1998 (TREMBLREL. 0
01-NOV-1998 (TREMBLREL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
SUN R., LIN S.-F., MILLER G.
SUBMITTED (SEP-1996) TO EMBL
EMBL: U75598; G1718266; -..
EMBL: U74585; G1658273; -..
EMBL: U74585; G2546546; -..
EMBL: U71366; G3551763; -..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             genes by
"Isolation and characterization of Marek's disease virus (MDV) cDNAs mapping to the BamHI-I2, BamHI-Q2, and BamHI-L fragments of the MDV genome from lymphoblastoid cells transformed and persistently infects with MDV.";
                                                                                                                                                                                                                                      GALLID HERPESVIRUS TYPE VIRUSES; DSDNA VIRUSES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RUSSO J.J., BOHENZKY PARRY J.P., PERUZZI I SUBMITTED (OCT-1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. MEDLINE; 97296220.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P. SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P. "Nucleotide sequence of the Kaposi sarcoma-associated he
                                                                                   PENG Q., ZENG M.,
SHIRAZI Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NEIPEL F., ALBRECHT J.C., FLECKENS
"Cell-homologous genes in the Kapo
human herpesvirus 8: determinants
human herpesvirus 8: determinants
J. VIROL. 71:4187-4192(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
NICHOLAS J., RUVOLO V.R.,
HENDRICKSON S., GUO H.G.,
SUBMITTED (NOV-1996) TO EN
                                                                                                                                                       STRAIN-GA;
                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                 ALPHAHERPESVIRINAE;
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                                                                                                                              MEDLINE; 96074534
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274:1739-1744(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97121480
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                                                                                                       BHUIYAN Z.A.,
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41.7%;
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10,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TO EMBL/GENBANK/DDBJ DATA BANKS
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                                                                                                                                                                                                                                                                                                     801,
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., HAYWARD G.S., REITZ M.S.;
EMBL/GENBANK/DDBJ DATA BANKS
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the Kaposi's sarcoma-associated
tminants of its pathogenicity?";
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Pred. No.
4; Misma
                                                                                                                                                                                                                                                                                                     CREATED)
LAST SEQUENCE UP
LAST ANNOTATION
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                                                                                                                                                                                                                                      STAGE;
                                                                                                       UBUKATA E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
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2.10e+00;
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                                                                                                       TANAKA A.,
                                                                                                                                                                                                                                                                                                       UPDATE)
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                                                                                                          NONOYAMA M.,
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.S.;
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RESULT 23
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Best Local S
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082387;
082387;
082387;
01.NOV-1998 (TREMBLREL. 08, C)
01-NOV-1998 (TREMBLEEL. 08, L)
01-NOV-1998 (TREMBLEEL. 08, L)
01-NOV-1998 (TREMBLEEL. 08, L)
01-NOV-1998 (TREMBLEEL. 08, L)
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01-MAY-1997
01-MAY-1997
                                                                                                            ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
EUKARYOTA; VIRIDIPLANTAE; CHAROPHYTA/EMBRYOPHYTA GROUP; EME
TRACHEOPHYTA; EUPHYLLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA;
EUDICOTYLEDONS; ROSIDAE; CAPPARALES; BRASSICACEAE; ARABIDOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
"Homo sapiens Chromosome 16 BAC clone CIT987SK-A-152E5.";
SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U91835; G1899259; -.
EMBL; U84487; G1888523; -.
EMBL; AC004382; G3252821; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BAZAN J.F., BACON K.B., HARDIM
GREAVES D.R., ZLOTNIK A., SCHAI
"A new class of membrane-bound
NATURE 385:640-644(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-NOV-1998 (TE
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EMBL; U34966; G1185444; -.
PFAM; PF00048; il8; 1.
NON_TER 1 1
STRAIN=CV. COLUMBIA; ROUNSLEY S.D., LIN X.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. MEDLINE; 97177111.
                                                                 SEQUENCE FROM N.A.
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5; Conser
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25
397
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    203 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           57.4%;
larity 50.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          118;
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397
42202
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45.5%;
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   KAUL
                                                                                                                                                                                                                                                                       PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HARDIMAN G.,
SCHALL T.J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 58;
Pred. No.
3; Misma
                                                                                                                                                                                                                                                                                                CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 58; DB 4; I
Pred. No. 2.10e+00;
3; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POTENTIAL.
CX3C CHEMOKINE.
C8093D7D CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       chemokine
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      SHEA
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   T.P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WANG
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. 2.10e+00;
                                                                                                                                                                                                                                                                                                                                                                                                                         535
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   FUJII
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      C.Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ×;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         397;
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      MASON
                                                                                                                                                                                EMBRYOPHYTA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
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Best Local s
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Best Local
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHC
SCIUROGNATHI; MURIDAF.
[1]
                                 01-JUL-1997 (TREMBLREL. 04, CREATED)
01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
SMALL INDUCIBLE CYTOKINE A21 (TCA4).
SCYA21.
MUS MUSCULIS (NOTATION)
                                                                   JLT 26
009002
009002;
01-JUL-1997
01-JUL-1997
01-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               000626;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SHEN M., RONNING C.M., FRASER C.M., SOMERVILLE C.R., VENTER J. *Arabidopsis thaliana chromosome II BAC T27A16 genomic sequenc SUBMITTED (SEP-1998) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; AC005496; G3582344; -. CELL DIVISION.
                                                                                                                                                                                                                                                                                                             ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
"Homo sapiens Chromosome 16 BAC clone CIT987SK-A-152E SUBMITITED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U83171; G1931581; -..
EMBL; U83239; G2062425; -..
EMBL; AC004382; G3252820; -..
                                                                                                                                                                                                                                                                               SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-JUL-1997 (TREMBLREL. 04, CREATED)
01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                    CHANG M.S., MCNINCH J., ELIAS III C., MANTHEY (
MENG T., BOONE T., ANDREW D.P.;
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SCOUENCE FROM N.A.
GODISKA R., CHANTRY D., RAPORT C.J.,
GODISKA R., CHANTRY P.W.;
MANTOVANI A., GRAY P.W.;
J. EXP. MED. 185:0-0(0).
                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MACROPHAGE-DERIVED CHEMOKINE PRECURSOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                            74 EICADPRVPWV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97 VCLEVKSKW
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                                                                                                                                                                 EICLDPKQKWI
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                                                                                                                                                                                                                                                                                                      PF00048; il8; 1.
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25
93 AA;
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                                                                                                                                                                                                            56.4%;
larity 54.5%;
Conservative
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             MURIDAE;
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                                                                                                                                                                                                                                                                    24
93
                        CHORDATA; VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 59484 MW;
              MURINAE;
                                                                                                                                                                                                                                                          MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 58;
Pred. No.
2; Misma
                                                                                                                                                                                                                       Score 57; DB 4; I
Pred. No. 3.29e+00;
                                                                                                                                                                                                                                                        POTENTIAL.
MACROPHAGE-DERIVED CHEMOKINE.
65EA63D2 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERTEBRATA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8AF744C7 CRC32;
              MUS
                                                                                                                                                                                                                                                                                                                                                             A.R., VENTER J.C.; clone CIT987SK-A-152E5.";
                                                                                                                                                                                                           Mismatches
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2.10e+00;
                                                                                                                                                                                                                                                                                                                                                                                                                                          MANTHEY C.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           93
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                        MAMMALIA;
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                                                                                                                                                                                                                                                                                                                                                                          FUHRMANN J.,
J.C.;
                                                                                                                                                                                                            <u>ω</u>
                                                                                                                                                                                                                                  Length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 535;
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                      EUTHERIA; RODENTIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                             GROSSHANS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ENTER J.C.;
sequence.";
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Best Local
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EMBL; AF001980; G2624927; -
MGD; MGI:1097677; SCYA21.
PFAM; PF00048; i18; 1.
SEQUENCE 133 AA; 14558 M
7LT 28
017348
017348;
                                                                                                                                                                                                                                                                                                                                                                                                               009006;
009006;
01-JUL-1997
01-AUG-1998
01-NOV-1998
                                                                                                                                                                                                                                                HROMAS R., KIM C.H., KLEMSZ M., KRATHWOHL M., FIFE K., CO SCHNIZIEIN-BICK C., BROXMEYER H.E.;
"ISOlation and characterization of Exodus-2, a novel C-C with a unique 37-amino acid carboxyl-terminal extension."
J. IMMUNOL. 159:2554-2558(1997).
                                                                                                                                                                                                                                                                                                                                                    MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
TISSUE-THYMUS.
TANABE S., LU Z., LUO Y., QUACKENBUSH E.J., BERMAN M.A.,
COLLINS-RACIE L.A., MI S., REILLY C., LO D., JACOBS K.A.
CUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ
EMBL; U88372; G3169697; -.
MGD; MGI:1097677; SCYA21.
PFAM; PF00048; i18; 1.
SEQUENCE 133 AA; 14600 MW; B34A5E22 CF
                                                                                                                                                                                                                                                                                                                                                                                                   01-JUL-1997 (TREMBLREL.
01-AUG-1998 (TREMBLREL.
01-NOV-1998 (TREMBLREL.
BETA CHEMOKINE EXODUS-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HEDRICK J.A., ZLOTNIK A.; "Identification and characterization of a novel beta chemokine containing six conserved cysteines."; J. IMMUNOL. 159:1589-1593(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. HEDRICK J.A., ZLOTNIK A.; SUBMITTED (MAY-1997) TO E
                                                                                                                                                                                                                                                                                                            TISSUE-TOTAL FETUS;
MEDLINE; 97444139.
                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. MEDLINE; 97400322.
                                                                                                                                                                                                        HROMAS R.A.;
                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                              73
                                                                                                                                                                                                                 SSUE-TOTAL FETUS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Match 56.4%;
Local Similarity 41.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ELCANPEEGWVQ 84
|:|:|:|:|
EICLDPKQKWIQ 12
                                                        EICLDPKQKWIQ
                                                                   ELCANPEEGWVQ
                                                                                                  h 56.4%;
Similarity 41.7%;
5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>ن</u>
             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                             84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14558 MW;
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07,
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Pred. No.
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDAT
                                                                                                  Score 57; DB 11; L
Pred. No. 3.29e+00;
4; Mismatches 3;
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             PRT;
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                                                                                                                                                 B34A5E22 CRC32;
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             331
                                                                                                                                                                                                                                                                                                                                                                                                                                                             133
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3.29e+00;
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                                                                                                                                                                                                                                                                                                                                                                    MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                UPDATE)
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                                                                                                                         Length 133;
                                                                                                                                                                                             BANKS
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                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                     EUTHERIA; RODENTIA;
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Best Local Similarity
Matches 6; Conser
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Matches 4; Conser
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STRAIR-RK32 (A2B3);
XOCONOSTLE-CAZARES B., LEON-RAMIREZ
MICROBIOLOGY 142:377-387(1996).
EMBL; X87748; G861151; -.
EMBL; X87748; G861151; -.
EMBL; X87748; G861151; -.
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BURTON J., CONNELL M., COPSEY T., COOPER J., COULSON A., CRANTON M.,
DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L., GARDNER A., GREEN P.,
HAWKINS T., HILLIER L., JIER M., JOHNSTON L., JONES M., KERSHAW J.,
KIRSTEN J., LAISTER N., LATREILLE P., LIGHTWING J., LLOYD C.,
MCMUTRAY A., MORTIMORE B., O'CALLAGHAN M., PARSONS J., PERCY C.,
RIFKEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R., SMALDON N., SMITH A.,
SONNHAMMER E., STADEN R., SULSTON J., THIERRY-MIEG J., THOMAS K.,
VAUGHAN K., WATERSTON R., WATSON A., WEINSTOCK L.,
WILKINSON-SPROAT J., WOHLDMAN P.;
                                                                                                                                                                                                                 CHS1.
USTILAGO MAYDIS (SMUT FUNGUS).
USTILAGO MAYDIS (SMUT FUNGUS).
USTILAGINOMYCETES;
USTILAGINOMYCETIDAE; USTILAGINALES; USTILAGINACEAE;
                                                                                                                                                                                                                                                                                   01-NOV-1996 (TREMBLREL.
01-NOV-1996 (TREMBLREL.
01-MAY-1997 (TREMBLREL.
CHITIN SYNTHETASE I.
                                                                                                                                                                                                                                                                                                                                                          Q99126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WATERSTON R.;
SUBMITTED (SEP-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF026207; G2435555; -.
EMBL; AF026207 G2435555; --
SEQUENCE 331 AA; 36627 MW; EA4C85EB CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
STRAIN-BRISTOL N2;
MAGGI L., HARPER M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAENORHABDITIS ELEGANS.
EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
RHABDITINA; RHABDITOIDEA; RHABDITIDAE; PELODERINAE; CAENORHABDITIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-JAN-1998 (TREMBLREL.
01-JAN-1998 (TREMBLREL.
01-NOV-1998 (TREMBLREL.
H42K12.2 PROTEIN.
                                                                                                                                                                                                                                                                                                                                            Q99126;
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STRAIN-BRISTOL N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUBMITTED (OCT-1997)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "2.2 Mb of contiguous nucleotide sequence from chromosome III of C. elegans.";
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MEDLINE; 94150718.
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                             483 EICAETKGKW 492
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EICLDPKQKW 10
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larity 40.0%;
Conservative
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                                                           Conservative
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                                                                       Score 57; DB 3;
Pred. No. 3.29e+00
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pred. No. 3.29e+00;
4; Mismatches
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Best Local
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O93599 PRELIMINARY;
O93599;
O1-NOV-1998 (TREMBLREL. 08, C)
O1-NOV-1998 (TREMBLREL. 08, L)
O1-NOV-1998 (TREMBLREL. 08, L)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OATES A.C.;
THESIS (1998), UNIVERSITY OF A
EMBL; AJ005693; E1326184; -.
SEQUENCE 806 AA; 92151 MW;
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTERYGII;
TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINOIDEA;
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                                                                                                                                                                                                                                                                                                      Local Similarity 54.5%;
nes 6; Conservation
                                                                                                                                                       1 EICLDPKQKWI
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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Pred. No. 3.29e+00;
2; Mismatches 3
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